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DEFENSE ACQUISITION WORKFORCE IMPROVEMENT ACT (DAWIA) CERTIFICATION: A COMPARATIVE ANALYSIS OF CERTIFICATION VERSUS QUALIFICATION

By: **Ralph Ocasio**
Regina Bublitz

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Advisors: **Brad Naegle,**
Karon Curry

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13. ABSTRACT (maximum 200 words)

This project reflects extensive research on the Defense Acquisition Workforce Improvement Act (DAWIA) certification process. Project participants analyzed the processes currently employed by the Department of Defense (DOD) for civilian Army acquisition Program Managers and compared these processes to other Services in relation to execution of the DAWIA certification process. Additionally, this project provides a comparative analysis of DAWIA compared to current DOD qualification initiatives. The intent of the project is to identify and provide recommendations for best of breed practices for maintaining a proficient workforce while preserving the integrity of the Army civilian Program Manager profession. While identification and recommendations for best of breed practices have been stated, the availability of qualification initiatives is either limited or emerging. As such, the researchers have identified future areas for further study.

DAWIA addresses career path requirements in title 10, United States Code 1723 by stating that the Secretary of Defense acting through the Under Secretary of Defense for Acquisition, Technology and Logistics, shall establish requirements for the completion of course work and related on-the-job training and demonstration of qualifications in the critical acquisition-related duties and tasks of the career path.

Workforce demographics are changing. The intent of the project is to examine current credentialing processes in place to maintain a proficient workforce and preserve the integrity of the profession.

Prior research regarding the effectiveness of DAWIA exists. This project will leverage this available body of knowledge and will compare it to existing processes to identify more efficient mechanisms/certifications for qualifying civilian Army acquisition Program Managers..

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Ralph Ocasio, civilian, Department of the Army
Regina Bublitz, civilian, Department of the Army

Submitted in partial fulfillment of the requirements for the degree of

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September 2013

Authors: Ralph Ocasio

Regina Bublitz

Approved by: Brad Naegle, Professor, Naval Postgraduate School

Karon Curry, Associate Dean, Defense Acquisition University

William R. Gates, Dean
Graduate School of Business and Public Policy

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LIST OF ACRONYMS AND ABBREVIATIONS

AAC	Army Acquisition Corps
AFB	Air Force Base
AMC	Army Material Command
APPEL	Academy of Program / Project & Engineering Leadership
AQS	Acquisition Qualification Standards
ASN (RD&A)	Assistant Secretary of the Navy for Research, Development and Acquisition
AT&L	Acquisition Technology and Logistics
BBP	Better Buying Power
C2Q	Certification to Qualification
CAP	Critical Acquisition Position
CIA	Central Intelligence Agency
CMS	Competency Management System
CNA	Center for Naval Analyses
COTS	Commercial off the self
CTA	Common Table of Allowances
DACM	Defense, Acquisition Career Manager
DACUM	Developing a Curriculum
DAP	Defense Acquisition Position
DASWP	Defense Acquisition Strategic Workforce Plan
DAU	Defense Acquisition University
DAW	Defense Acquisition Workforce
DAWDF	Defense Acquisition Workforce Development Fund

DAWIA	Defense Acquisition Workforce Improvement Act
DHS	Department of Homeland Security
DMR	Defense Management Review
DoD	Department of Defense
DOE	Department of Energy
DON	Department of the Navy
DPM	Deputy Program Manager
DRPM	Direct Reporting Program Managers
FA	Functional Advisor
FAI	Federal Acquisition Institute
FIPT	Functional Integrated Product Team
FY	Fiscal Year
GAO	General Accounting Office
HCI	Human Capital Initiatives
INCOSE	International Council on Systems Engineering
IPT	Integrated Process Team
IT	Information Technology
KLP	Key Leadership Positions
KSA	Knowledge Skills and Abilities
MDAP	Major Defense Acquisition Program
MTOE	Modification Table of Organization and Equipment
NASA	National Aeronautics and Space Administration
NPS	Naval Postgraduate School
OFPP	Office of Federal Procurement Policy

OMB	Office of Business Management
OPM	Office of Personnel Management
OSD	Office of the Secretary of Defense
OUSD P&R	Office of Under Secretary of Defense, Personnel and Resources
PEO	Program Executive Office
PM	Program Manager
PMI	Project Management Institute
S&T	Science and Technology
SE	Systems Engineering
SETM	Senior Enterprise Talent Management
SME	Subject Matter Expert
TCM	TRADOC Capabilities Manager
TDA	Tables of Distribution Allowance
USAASC	Unites States Army Acquisition Support Center
USD	Under Secretary of Defense
WMG	Workforce Management Group

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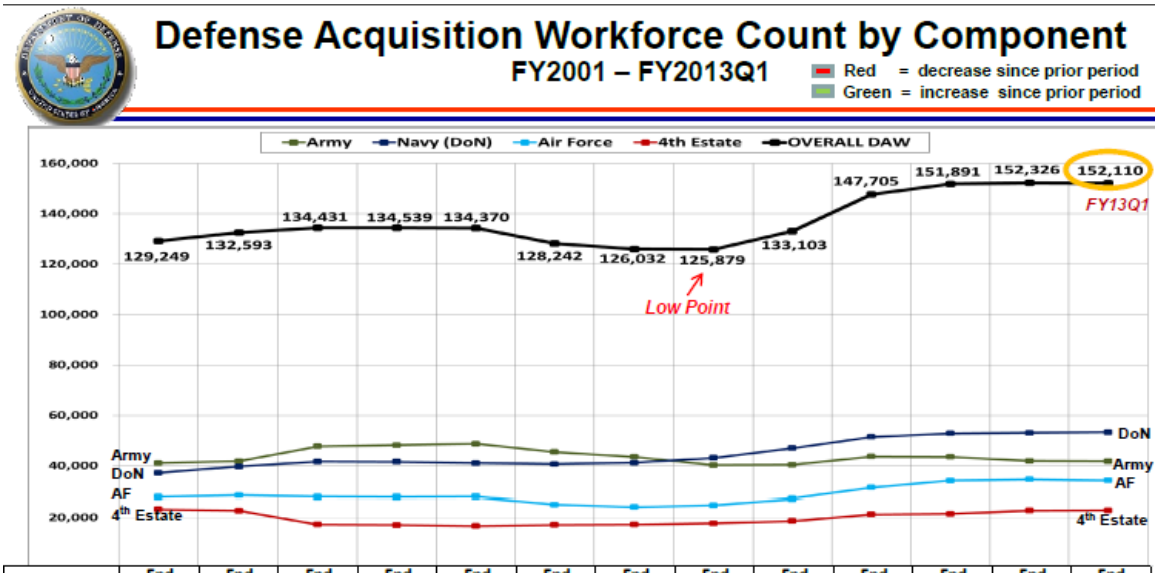
I. INTRODUCTION

"Everything we do, every process we adopt, and every organizational adjustment we make serves a single purpose: get our soldiers to the fight; provide discriminatory advantage to our soldiers; and, enable our soldiers to return home safely."

—Heidi Shyu,
Army acquisition executive

A. GENERAL

Every year, the United States spends in excess of $1.6 trillion on major defense acquisition programs to support the National Defense (The Defense Acquisition Workforce Improvement Strategy, 2010). These acquisitions, all executed by a cadre of acquisition professionals, provide for a range of products and services needed to equip, move, train, and sustain military operations worldwide. With such an important and vital task, the need to maintain a well-trained, adaptive and competent acquisition workforce is imperative to the success of our national defense. However, the truth is that the acquisition workforce has been in a state of constant evolution since before the inception of the DAWIA in 1990. For example, if we just examine the size of the acquisition workforce over the last 30 years, this population has experienced growth and reductions from year to year. Fluctuations such as these make it difficult to recruit, train, and sustain a competent staff. Figure 1 shows that during the years 2001–2013, the acquisition force structure fluctuated dramatically, increasing in seven years, yet declining in five years, this while fighting two wars. The population of the workforce has enjoyed a net increase over this span; however the latest trends show a steady decline of that population, specifically in the Army (Defense Acquisition Workforce, 2010).



Component	End FY01	End FY02	End FY03	End FY04	End FY05	End FY06	End FY07	End FY08	End FY09	End FY10	End FY11	End FY12	End FY13-Q1
Army	41,074	41,783	47,697	48,188	48,697	45,443	43,473	40,269	40,356	43,634	43,476	41,877	41,744
Navy (DoN)	37,158	39,661	41,622	41,552	41,070	40,651	41,177	43,066	46,972	51,418	52,791	53,058	53,313
Air Force	27,820	28,444	27,888	27,775	27,932	25,075	24,172	24,827	27,174	31,382	34,147	34,637	34,187
4th Estate	23,197	22,705	17,224	17,024	16,671	17,073	17,210	17,717	18,601	21,271	21,477	22,754	22,866
OVERALL DAW	129,249	132,593	134,431	134,539	134,370	128,242	126,032	125,879	133,103	147,705	151,891	152,326	152,110
Change From Prior Period		3,344	1,838	108	(169)	(6,128)	(2,210)	(153)	7,224	14,602	4,186	435	(216)
		2.6%	1.4%	0.1%	-0.1%	-4.6%	-1.7%	-0.1%	5.7%	11.0%	2.8%	0.3%	-0.1%

Figure 1. Defense Acquisition Workforce Count by Component (from Defense Acquisition Portal 2013)

In addition to the strength of the acquisition workforce, a necessary factor in ensuring that a continued professional and competent population exists is to increase the acquisition and management competencies of this vital population. This necessarily includes the management, technical, and business capability, and capacity to manage and oversee the full spectrum of the acquisition process. This includes managing major acquisition programs, which can often last decades.

Prior to and since DAWIA was enacted in 1990, there have been numerous studies conducted and reports written about how to best redesign the acquisition process, such as Fox, J. Ronald, The Defense Management Challenge: Weapons Acquisition, (Fox 1988) and Weapons Acquisition: A Rare Opportunity for Lasting Change, (United States General Accounting Office 1992). However until recently, very few of these studies have focused on improving the competencies, education, training, quality and opportunities for the workforce that executes the largest buying enterprise in the world (The Defense

Acquisition Workforce Improvement Strategy, 2010). In addition, these studies do little to address the human factor in building these competencies. Previous studies recommend and suggest the regulation of an acquisition workforce certification process, which includes education, training and experience. However, not a lot of attention is paid to regulating the quantity and quality of the experience necessary to cultivate a highly competent acquisition professional.

B. RESEARCH OBJECTIVES

This research focused on the problems and challenges that have beset the acquisition workforce past and present. This study attempts to identify the best-of- breed practices for maintaining a proficient workforce while preserving the integrity of the profession. In doing so, the project authors researched the Defense Acquisition Workforce Improvement Act (DAWIA) legislation and the certification processes currently employed by the Department of Defense (DoD) for civilian Army acquisition Program Managers. They analyzed the DAWIA certification process and compared them to service-specific qualification initiatives. Additionally, the researchers visited and conferred with the service DACM's, DAU leadership, PEO's, and Army Acquisition staff to understand their assessment of the acquisition workforce. The intent of the project was to examine current credentialing processes in place for civilian Army acquisition program managers and determine a better way forward.

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II. BACKGROUND: DAWIA LEGISLATION

"We can no longer afford to fight a bureaucratic and rule driven system—we must be able to take advantage of the professionals we have in the acquisition work force and allow them to exercise their judgment in making sound business decisions on behalf of the U. S. Government."

—Colleen A. Preston,
Deputy Under Secretary of Defense for Acquisition Reform

Initially enacted in November of 1990, the DAWIA was meant to improve the capabilities and effectiveness of those professionals responsible for executing the nation's defense acquisition programs. As part of the Defense Authorization Act, DAWIA mandated that an Acquisition Corps be established to regulate, certify, and record vital and critical acquisition education, training and experience of each of its members. This legislation focused on professionalizing the acquisition workforce as its main objective. The ACT called for a program to institutionalize the education and training of these individuals, as well as documenting and recording the work experience of the acquisition professional. While the ACT was written to regulate both civilian and military acquisition professionals, it provided a new set of opportunities for documenting the professional development and advancement of the civilian population, which until now was not done. The ACT has been through major changes over the years, most extensively in 2003. The 2003 changes were so significant that the 2003 version of the ACT is often called DAWIA II (Acquisition Support Center, 2004).

The DAWIA legislation not only mandated the development of a more educated professional acquisition workforce, it also provided for the Secretary of Defense to establish a procedure under which the assignment of each individual assigned to critical acquisition positions (CAP) shall be, reviewed. This review process was to take place on a regular and continuous basis to ensure the workforce stays current, challenged and expands their capabilities to continue serving the National Defense mission.

The driving force behind the DAWIA ACT were the reports generated by the 1986 President's Blue Ribbon Commission on Defense Management, also known as the

Packard Commission. These reports commissioned by President Reagan and led by David Packard, founder of Hewlett Packard, who also served as the U.S. Deputy Secretary of Defense, described the DoD acquisition work force as "undertrained, underpaid, and inexperienced." These findings were made evident in the early 1980s by some embarrassing examples of gross and comical overpayments by the pentagon for various non-essential items, such as the $400 hammer or the $600 toilet seat (Sharp, 2009). Additionally, in July 1989, GAO conducted other reviews such as the DoD Defense Management Review (DMR), which showcased how well DoD was implementing the directives as defined in the Packard Commission. What they found three years later was that DoD was experiencing many of the same problems as the Packard Commission had found in 1986. As a result (GAO, 1990), the GAO in August 1991 recommended through the Acquisition Reform "Implementing Defense Management Review Initiatives" additional management initiatives to improve the DODs acquisition process to include revamping the acquisition workforce (Sharp, 2009).

The DMR addressed the need to change the culture of the acquisition management as well as reconfiguring and resizing the acquisition workforce. The DMR required the services to develop plans for a dedicated workforce that would make acquisition specialists a full-time career. DoD realized that the development of these highly qualified acquisition professionals with the appropriate experience, training, and education was critical to creating a more streamlined acquisition system, which was directed by both the Packard Commission and the DMR (GAO, 1990) Additionally, the DMR recommended changes in the services for the establishment of a highly qualified corps of program managers which would lead the major acquisition programs of the future. This was such a major initiative that it is also adopted into DAWIA.

In addition to the creation of a formal acquisition workforce development plan, the Packard Commission and the DMR also mandated the streamlining of the acquisition workforce. This called for a reduction in the force structure by 20 percent in the years following the reports[1].

[1] House Armed Services Committee, National Defense Authorization Act H.R. 110 Congress; . REP NO. 110-4986, (2008).

III. THE WORKFORCE POPULATION AND DAWIA

"Workforce size is important, but quality is paramount"

—Ashton B. Carter,
Under Secretary of Defense for Acquisition Technology and Logistics

Since 1987, the acquisition workforce has experienced a dramatic reduction in its population; however this has been normalizing within the last few years. As Figure 2 shows, acquisition professionals numbered over 622,000 in 1987 to just over 133,000 in 2009. Today, the workforce totals just over 152,000, or a reduction of 76 percent since 1987, while DoD acquisitions have tripled in volume totaling 1.6 trillion dollars spent in 2012.

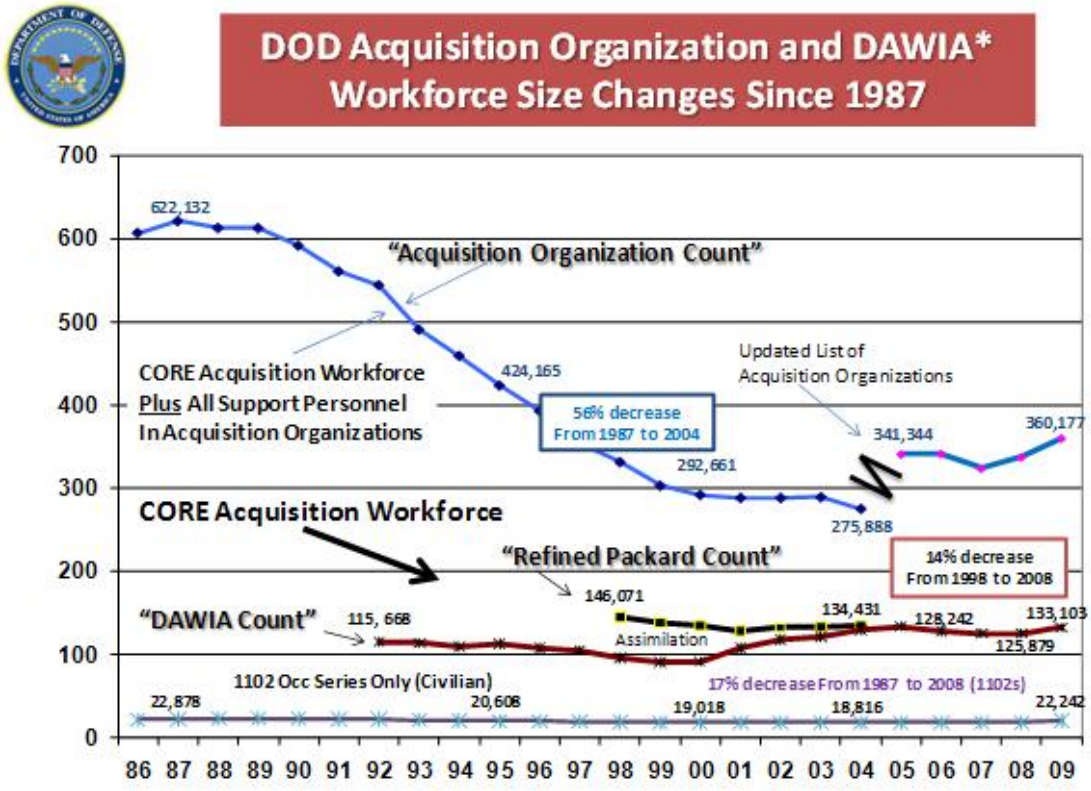

Figure 2. DoD Acquisition Organization and DAWIA Workforce Size Changes Since 1987 (From Defense Acquisition Portal 2013)

In 2009, the GAO reported that out of 66 program offices assessed, well over one-third (37 percent) of the personnel performing acquisition-related functions were contractors from private industry (Sharp, 2009).

The consequences of an underfunded, understaffed and over-outsourced DoD oversight corps have become abundantly clear. Under President George W. Bush, DoD investigators referred 76 percent fewer fraud and corruption cases to the Justice Department for potential prosecution than were referred under President Bill Clinton. GAO reported in March 2009, that 96 major defense acquisition programs (MDAP) were a combined $296 billion over budget in Fiscal Year (FY) 2008. In contrast, 75 MDAPs were only $43 billion over budget in FY 2000. Total cost overruns have therefore, increased by 588 percent in eight years (Sharp, 2009). All these statistics stem from the population and quality of the workforce. The dilemma within the DoD is to determine the appropriate size of the acquisition workforce given the growing demands for more lethal and accurate weapon systems. Systems costs have skyrocketed since the Packard Commissions initial reports. However, with the fluctuations of the workforce over the last 26 years, it is difficult to balance the workforce capability with end force strength.

Though the end strength today seems to be holding at right around 150,000 acquisition professionals, the challenge is maintaining that strength through attrition, sequestration, and military reductions in force. Critical to the nation is recruiting, training and retaining a crop of new, energetic and committed professionals that will be responsible for acquiring the National Defense materiel into the next century.

A. THE DAWIA TENENTS

DAWIA's intent was to ensure that DoD has sufficient qualified personnel to manage the acquisition of systems to support the National Defense of the United States. This workforce must be comprised of skilled, trained and motivated personnel to meet the multitude of challenges facing the acquisition community. Defense systems have become increasingly complex and costly, and the DoD needs a capable cadre of professionals to carry out this important mission.

DAWIA not only established requirements for the Defense Acquisition Workforce (DAW) members, but it also addressed the Defense Acquisition Positions (DAP). This is a key attribute of the act because it ensures that the workforce has a clear career path with opportunities for progression, increased responsibilities, and allows them to stay current and relevant in acquisition programs. The act, by establishing key positions that require mature training and education in acquisition, mandates that DoD:

- Designate and code specific jobs as "Acquisition" positions.
- Provide a structured approach for filling these designated positions with qualified acquisition personnel.

In order to do this, the act required that DoD establish standards for:

- Education: Ensuring that the workforce possessed the necessary education to maintain proficiencies
- Training: Provide the necessary acquisition training to the workforce
- Experience: Providing and documenting / recording the experience of the workforce.

Additionally, today's acquisition professional, due to increasing complexity in weapons systems and platforms, need to possess increasing levels of:

- Specialized knowledge
- Analytical skills
- Good judgment

Though established in 1990, these requirements still stand as the core tenets and capabilities to maintain good standing within the DAW. Though there does not seem to be an overarching cure for failed programs, the ACT provides a mechanism to reduce those inefficiencies

1. CERTIFICATIONS

The certification requirement as established by the DAWIA act is the key tool in developing, recording and tracking the professional growth of the acquisition workforce. Critical training requirements build upon the formal education that should be required for each workforce member and experience rounds out the key components of the certification process.

All 15 acquisition career fields have a set of core requirements needed to achieve the various levels of acquisition education, training, and experience. Collectively, these requirements must be satisfied in order for individuals within the DAW to progress and meet the certification levels necessary for their current and future positions. All acquisition positions are coded, requiring a set level of acquisition certification based on the attributes needed for that position. Certification levels range from Level 1 to Level III, with Level III being the top level required to meet the CAP requirements. In addition to the core certification education, training, and experience requirements, the Defense Acquisition University (DAU) has also identified core plus (+) requirements that are designed to aid in building additional educational opportunities for the acquisition professional.

Though the Defense Acquisition University (DAU) has the mission to provide acquisition training as detailed in the DAWIA, certifying each individual is the responsibility of the Service Defense Acquisition Career Manager (DACM). Each service, as well as the other DoD Agencies e.g. Defense Contracting Management Agency (DCMA), have unique systems to facilitate and record the certification. Figure 3 shows the certification levels by career fields as reported by the DACMs

The DACMs, as discussed later in this paper, are responsible for supporting their Services' acquisition mission through personnel development and certification, as well as maintaining a culture of constant organizational improvement.

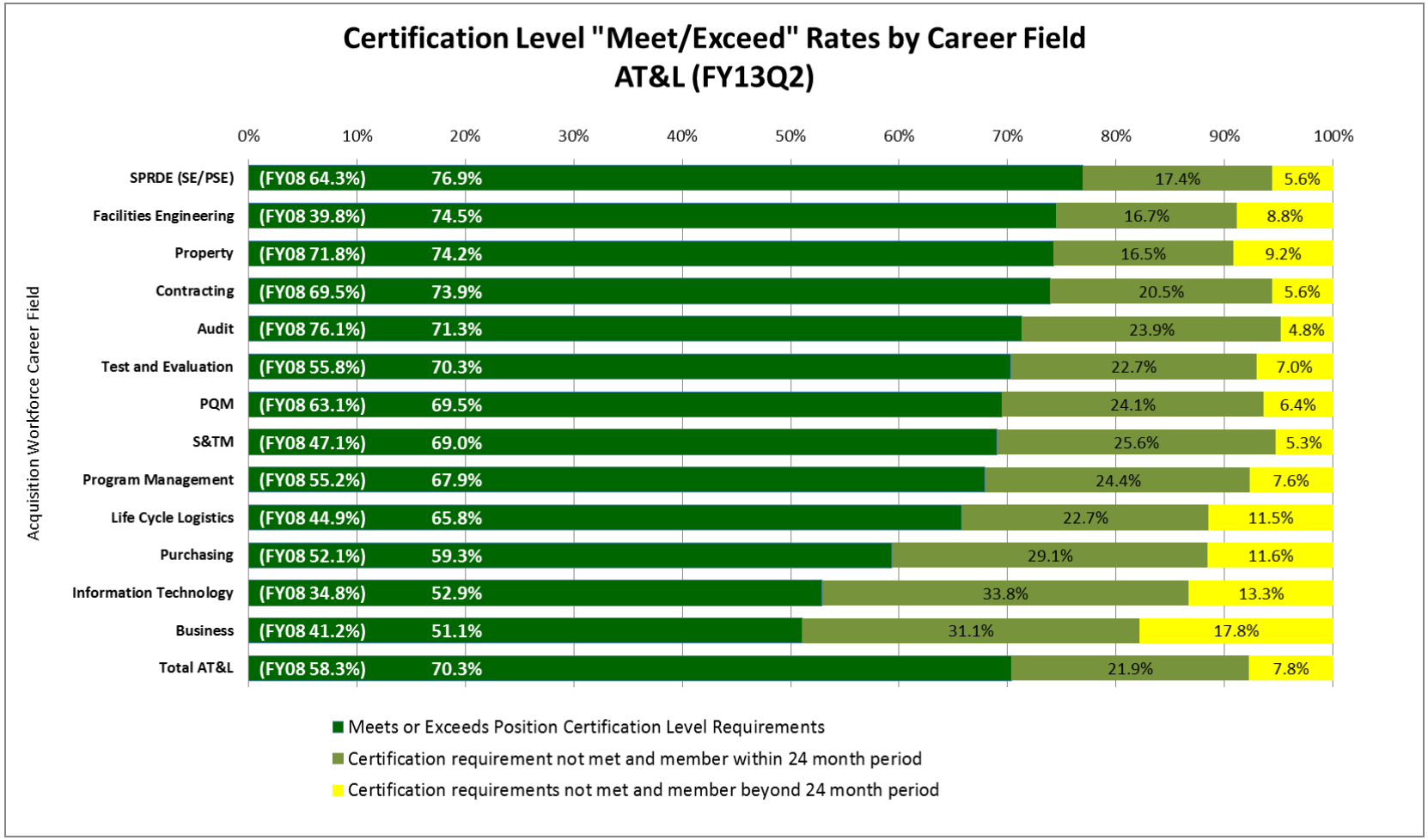

Figure 3. Certification Level by Career Field FY13 **(**From AT&L Data Mart (as of 03–31–2013)

2. EDUCATION

The act established certain education levels pertinent to specific acquisition career fields as well as membership criteria for entering into the Acquisition Corps. These education levels were necessary to professionalize and ensure a fully qualified, committed, and mature workforce is maintained. However, educational requirements as developed are not consistent throughout the acquisition career fields. For instance, in some of the more technical career fields, such as systems engineering, the requirement is for a Baccalaureate or graduate degree in a technical or scientific field such as engineering, physics, chemistry, biology, mathematics, operations research, engineering management, or computer science. These requirements are the minimum to achieve Level I certification. However, in the Program Management Career field, there is no minimum educational requirement for certification up to Level III. These inconsistencies make it difficult to maintain core competencies throughout the acquisition workforce, when there are professionals working inside program offices with specialties requiring advanced degrees, but the individuals responsible for managing the program, ensuring products meet Cost, Schedule and Performance requirements, need nothing but a High School Diploma.

The lack of a static educational baseline requirement cannot be the intent of the DAWIA act if in fact the DAWIA act was designed to modernize and professionalize the DAW. As we shall see in the next section, training is an extension of the formal educational requirement. Table 1 below depicts the 15 Acquisition Career fields and their current educational requirements:

Career Field	Level I	Level II	Level III
Program Management	N/A	N/A	N/A
SPRDE-SE	BS or higher in Tech field*	BS or higher in Tech field*	BS or higher in Tech field*
SPRDE-PSE	BS or higher in Tech field*	BS or higher in Tech field*	BS or higher in Tech field*
Information Tech	N/A	N/A	N/A
Life cycle Logistics	N/A	N/A	N/A
Contracting	24 hrs in Bus	24 hrs in Bus	24 hrs in Bus
Test and Evaluation	BS	BS	BS
Science and Tech Mgr	BS or higher	BS or higher	BS or higher
Auditing	BS	BS	BS
Bus. Cost Estimating	BS	BS	BS
Bus. Financial Mgmt	N/A	N/A	N/A
Facilities Engineer	N/A	N/A	N/A
Ind. Cont Prop Mgmt	N/A	N/A	N/A
Prod. Quality Manuf.	N/A	N/A	N/A
Purchasing	N/A	N/A	No level III Cert
***Baccalaureate or graduate degree in a technical or scientific field such as engineering, physics, chemistry, biology, mathematics, operations research, engineering management, or computer science**			

Table 1. Education Requirements by Career Field

In addition to the Acquisition Career fields listed in Table 1, other educational requirements exist as stipulated by Title 10 USC Ch. 87 - Sec. 1732. This section of the DAWIA act describes the strict selection criteria and procedures for membership in the Acquisition Corps. These requirements mandate that individuals requiring membership into the Corps:

- Have received a Baccalaureate Degree at an accredited educational institution authorized to grant Baccalaureate degrees, or
- Possess significant potential for advancement to levels of greater responsibility and authority, based on demonstrated analytical and decision making capabilities, job performance, and qualifying experience.

In addition to those requirements, members must also:

- Achieve at least 24 semester credit hours (or the equivalent) of study from an accredited institution of higher education from among the following disciplines: accounting, business finance, law, contracts, purchasing,

economics, industrial management, marketing, quantitative methods, and organization and management; or

- Also achieve at least 24 semester credit hours (or the equivalent) from an accredited institution of higher education in the person's career field and 12 semester credit hours (or the equivalent) from such an institution from among the disciplines listed in clause (i) or equivalent training as prescribed by the Secretary of Defense to ensure proficiency in the disciplines listed in clause (i).

These hard requirements are codified in law and may not be waived by the Secretary of Defense.

The ACT, having mandated a minimal level of education requirements for entry into the DAW, also mandates additional educational levels as members reach critical junctures within their career. These requirements are mechanisms to ensure continued growth and professionalism within the workforce. Figure 4 shows the FY13 statistics for education levels with the DAW.

Defense Acquisition Workforce
Educational Levels *FY13-Q2*

Highest Level of Education	*Entire DAW*	
Post Grad	*54,451*	*35.6%*
Bachelors	*71,009*	*46.5%*
Some College	*12,773*	*8.4%*
High School	*13,825*	*9.0%*
Other	*748*	*0.5%*
TOTAL	*152,806*	

Note: Project Source: OUSD (AT&L) HCI Data Source: AT&L Data Mart (FY13-Q2 as of 03–31–2013)

Figure 4. Acquisition Workforce Education Levels FY13 (From DAU)

3. TRAINING

Title 10 USC Ch. 87 - Sec. 1746. "The Secretary of Defense shall establish and maintain a defense acquisition university structure to provide for the professional educational development and training of the DAW." (DAU Command Brief 2013) The DAWIA act directed DoD to establish the Defense Acquisition University (DAU). DAU provides the DoD an acquisition development and training program to meet the requirements of personnel serving in acquisition positions. DAU sponsors acquisition training to support the career goals and professional development of the acquisition workforce. DAU also supports acquisition management research and publications. DAU's mission statement is to "provide a global learning environment to develop qualified acquisition, requirements and contingency professionals who deliver and sustain effective and affordable warfighting capabilities." Their vision is **"**Enabling the Defense Acquisition Workforce to achieve better acquisition outcomes" (http://www.dau.mil/AboutDAU/Pages/mission.aspx).

The DAU has been very successful in administering and executing the training intent and requirements of the DAWIA act. Last year alone (FY2012), DAU executed 7,133,183 hours of training across 5 campuses, they graduated 216,399 students which included 157,956 online graduates and 58,443 classroom graduates. Additionally, DAU also made available 287 Continuous Learning Modules (CLM) with 674,038 completions and 3,160,554 training hours.

DAU supports the necessary training process dictated by the act by providing 105 courses supporting certification. DAU teaches 19 Level I courses, 53 Level II courses and 18 Level III courses, all requirements for Acquisition Certification. Additionally, DAU also provides Executive and Leadership Support courses (15), which provide higher level training opportunities above and beyond certification.

Whether obtaining certification, Acquisition Corps membership, or meeting some other training requirement associated with DAW, the DoD Components which include the DACM's are responsible for selecting the appropriate candidate civilian and military members to attend DAU courses. Services should only select persons for DAU training

that meet pre-certification requirements and are qualified to perform the duties to which they are assigned. Additionally, eligible employees need to seek out the required DAU training to support career development opportunities within the workforce. During our research for this project, a common theme throughout the DACMs and DAU community has been that, far too often, non-qualified individuals have been sent to attend critical DAU training. This causes a shortage of available class seats for those individuals that need required training to meet certification and mission requirements.

DAU has experienced a high rate of growth in its graduation rates in the last 10 years, realizing an increase of almost four times the number of graduates in FY2012 as it did in FY2002, see Figure 5. This can be attributed to the growing number of quality and motivated workforce personnel as well as the push by the current administration to do a better job at increasing the capabilities of the current workforce. As weapons systems and programs become more and more complex, the need to develop and sustain a professional workforce is vital to our National Defense.

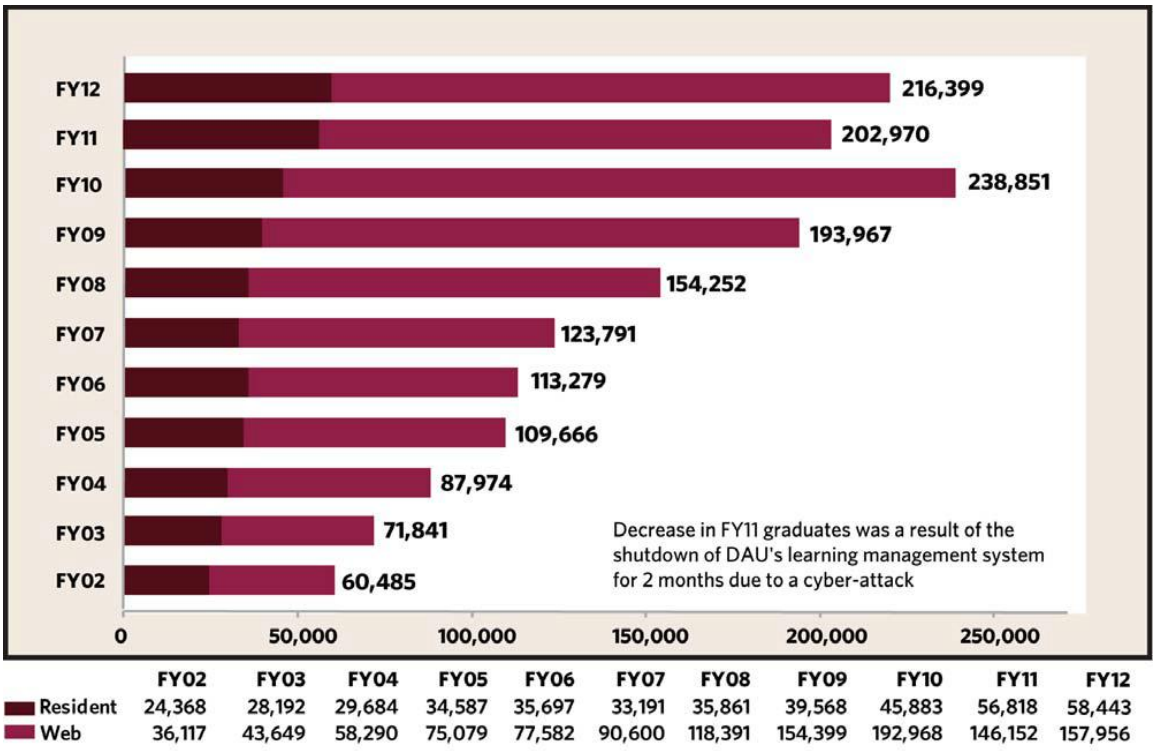

Figure 5. DAU Graduation Rates (Defense Acquisition University Annual Report 2012)

4. EXPERIENCE

The DAWIA Act calls for a triad of requirements to ensure a qualified workforce. Experience is the third piece of this triad that when combined with education and training provides the foundation and baseline for developing the necessary capabilities necessary to professionalize the acquisition process. Experience is also the key attribute in reaching and meeting certification levels. Additionally, experience, is critical to understanding the multiple phases and complex processes in acquiring and developing weapons systems vital to our National Defense. However, it can also be the long pole in the tent to regulate. Though there are well documented experience level requirements to meet acquisition certification, Acquisition Corps membership and specific acquisition positions, the process of recording, reporting and verifying that experience is not very well regulated. The services each evaluate experience differently and use different tools to record it, however the criticality of correctly assessing experience can make the difference in being successful in an acquisition position or not, leaving experience the most subjective of the requirements triad.

The DAWIA ACT dictates acquisition experience is required for certification, membership in the Acquisition Corps, and to fulfill certain acquisition positions. Experience is further classified as specialized acquisition experience or general acquisition experience. The difference is how the experience is recorded in the standard for each of the acquisition career fields. If the experience level required is stated as "acquisition experience necessary," then any acquisition experience will fulfill this requirement. However, if the standard within the career field specifically spells out experience in that career field, then the experience is specialized and only time served performing those functions can count as experience. This process provides a mechanism to allow individuals to grow within their career fields or cross train into other career fields using already developed experience. However, the major drawback of this system is that it still relies on an interpretation of the recorded experience by an evaluator. Specialized experience must be accumulated performing many of the functions necessary to achieve certification in that career field. This is also the reason why experience is crucial to meeting certification levels and maintaining confidence in the system that certified individuals are capable of performing the functions of their positions. Additionally, requiring acquisition experience in sufficient levels allows for individuals to fully understand the idiosyncrasies of acquisitions within their level prior to movement to the next acquisition certification level.

In addition to general and specialized acquisition experience, some acquisition positions carry statutory or regulatory experience requirements as well. An example of these positions is the program manager of a MDAP.

Experience can be gained while serving in a designated acquisition position, which counts toward requirements for certification and statutory experience. Experience requirements may also be met through comparable experience gained in acquisition functions in other Government agencies or in private industry. However, experience must have been obtained within eight years of the request for certification; this is done to ensure professional currency is maintained.

While conducting research for this project, it was determined that the Services, through the DACM's, all access experience through evaluation of the applicants resumé with the exception of the Air Force. Resumés act as the record of demonstrating time in an acquisition position. The resumé is further analyzed to ensure actual acquisition

functions were performed while in that position. The Air Force is slightly different, they have matured their position coding to the point that there is sufficient confidence in their system that all individuals serving in acquisition coded positions are credited with the experience sans the resumé. This approach, developed over years of trial and error, ensures that all individuals selected to acquisition positions achieve the necessary experience required for that position. Supervisors of acquisition positions must ensure that all subordinates perform the functions necessary to the position and that the experience is recorded and reported. As an individual requests certification, the DACM evaluator must only review the applicant's prior positions and ascertain that by virtue of being in the position has achieved the experience requirement. Certification, then, becomes a fairly straight forward process.

Though the other services still struggle through cumbersome resumé and position evaluations, all in all, the processes appear to capture the acquisition experience fairly accurately.

B. DEFENSE ACQUISITION CAREER MANAGER (DACM)

The DACM in the DoD was established to ensure the maintenance of a skilled, experienced, and stable workforce. Their goal is to recruit, train and retain that workforce while controlling acquisition costs. The DAWIA ACT identified the requirement for the services to further develop and staff an agency to manage and direct the acquisition processes and acquisition workforce within each service. DACM offices were created to facilitate the administration, management and development of the DAW within the DoD. For the Army, United States Army Acquisition Support Center (USAASC) supports the acquisition mission through personnel development systems and management support capabilities. Thus enabling the most effective and efficient equipping of the Nation's forces while maintaining an internal culture of constant organizational improvement (http://asc.army.mil/web/organization/mission statement). USAASC is the Army DACM's implementation agency.

USAASC serves to manage the Army Acquisition Corps (AAC) and the Army Acquisition workforce. It also provides customer service and support to the Program Executive Offices (PEO) and Direct Reporting Program Managers (DRPM) in the areas of human resources, resource management (manpower and budget), program structure, and acquisition information management.

Each service maintains a DACM with similar mission directives. For instance the Navy's DACM mission is to serve as the lead for the professional development and management of the Department of the Navy (DON) acquisition workforce. The DACM is the chief advisor and staff assistant to the Assistant Secretary of the Navy for Research, Development, and Acquisition. The DACM also represents the Assistant Secretary and the Principal Civilian Deputy Assistant Secretary for RD&A in all matters relating to initiatives and other efforts that improve the DAW through education, training, and career management
(http://acquisition.navy.mil/home/acquisition_workforce/meet_dacm/mission statement).

Each service DACM has unique service requirements; however their core mission is to:

- Direct advisor to the acquisition workforce on education, training and career development
- Develop Acquisition Workforce Strategies and Policies
- Provide Acquisition Community Stewardship
- Develop Acquisition Workforce Requirements
- Manage Acquisition In-Sourcing
- Manage Acquisition Section 852
- Manage CAP/Key Leadership Positions (KLP)
- Manage Career Development Programs and Opportunities
- Report Acquisition Workforce Metrics

C. DEFENSE ACQUISITION WORKFORCE DEVELOPMENT FUND (DAWDF)

The National Defense Authorization Act for FY 2008, established the Defense Acquisition Workforce Development Fund (DAWDF). This fund facilitates and helps the DoD to recruit, hire, develop, train, and retain its Acquisition workforce. The law, known as Section 852, consists of three main categories: Training and Development, Retention, and Recruitment. The purpose of the Fund is to ensure that the DAW has the capacity, in both personnel and skills, needed to properly perform its mission, provide appropriate oversight of contractor performance, and ensure that the DoD receives the best value for the expenditure of public resources. Each service, through their DACM, administers this fund and provides educational and training opportunities to the DAW. This includes programs such as:

- Acquisition Tuition Assistance Program
- Congressional Operations Seminar
- DAU, Senior Service College
- Excellence in Government Fellows Program
- Naval Postgraduate School

Section 852, as with the other resources available to the DAW, provides the mechanisms and venues to satisfy the tenets and intent of the DAWIA Act, professionalize the acquisition community to ensure the Government resources are used in the most effective and efficient manner to support our National Defense.

IV. COMPARISON

A. CURRENT STATUS OF ARMY CIVILIAN PROGRAM MANAGERS

Earlier chapters compared and contrasted DAWIA certification for all of the Services. This effort serves as the foundation for the comparative analysis of DAWIA certification to qualification initiatives. The intent of the analysis is to examine current credentialing processes in place for civilian Army Program Managers in order to facilitate recommendations for best of breed practices for maintaining a proficient workforce while preserving the integrity of the profession may be made. Full comprehension of the analysis, though, relies on a fundamental understanding of the current status of Army civilian Program Managers, restatement of current Senior Leadership thought on the state of the acquisition workforce, a common language for providing a contextual framework and presentation of current/emerging initiatives.

In FY2009, the Army represented 26% of the overall DAW in the Program Management Career field. As represented by Table 2, civilians comprised nearly three quarters of this number. (Defense Acquisition Workforce, 2010). A comparative decomposition of Army civilian Program Managers compared to Army military Program Managers in FY2009 can be found in Figure 6. (Defense Acquisition Workforce, 2010)

Defense Acquisition Workforce Civilian/Military Composition Program Management Career Field (FY09)						
Acquisition Career Field	FY09 Count	Count %	Civ	Mil	Civ %	Mil %
Army	3,452	26%	2,529	923	73%	27%
Navy/Marine Corps	4,598	34%	3,335	1,263	73%	27%
Air Force	4,461	33%	2,014	2,447	45%	55%
DCMA	334	2%	334	0	100%	0%
DLA	7	0%	7	0	100%	0%
Other	570	4%	570	0	100%	0%
Total	**13,422**	100%	**8,789**	**4,633**	65%	35%

Table 2. Defense Acquisition Workforce PM Career Field FY2009 (from Defense Acquisition Workforce PM Career Field FY2009)

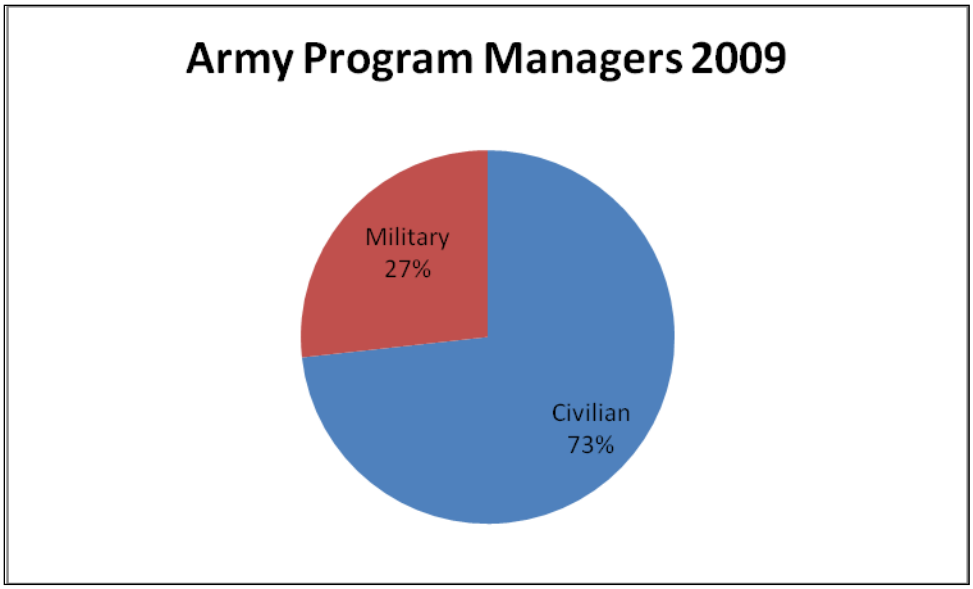

Figure 6. Army Program Managers FY2009 (from Defense Acquisition Workforce PM Career Field FY2009)

On April 6, 2009, the Secretary of Defense announced his intent to grow the acquisition workforce 15% by 2015. (Defense Acquisition University, 2010). According to Service Component inputs to the October 26, 2009 Senior Steering Board, the Acquisition Technology and Logistics Human Capital Initiatives (AT&L HCI) effort projects civilian growth in the program management career field to grow by 2,600 (19%) by 2015 (Defense Acquisition University, 2010). Table 3 provides a comparison of the projected growth within the program management career field when compared to other acquisition workforce career fields requiring DAWIA certification (HCI, 2013).

Defense Acquisition Workforce (DAW) Career Field/Career Path	FY09 - FY15 % of Total DAW Growth	FY09 - FY15 % Career Field Growth
Contracting (includes Pricing)	26%	23%
Systems Planning, Research, Development & Engineering (SPRDE) (Program & Systems Engineering Career Paths)	22%	16%
Program Management	11%	19%
Life Cycle Logistics	9%	16%
Business (Cost Estimating & Financial Management Career Paths)	7%	23%
Production, Quality and Manufacturing	5%	13%
Audit	3%	20%
Information Technology (Acquisition)	2%	14%
Facilities Engineering	2%	10%
Test & Evaluation (Acquisition)	1%	5%
Industrial and/or Contract Property Management	0%	12%
SPRDE - Science and Technology Career Path	0%	10%
Purchasing	0%	3%
Other/Unallocated Growth	12%	

Table 3. DAW Growth (from Appendix 1 DoD Strategic Human Capital Plan Update The Defense Acquisition Workforce 2013)

At approximately the same time as the Secretary of Defense's announcement to grow the workforce, Office of Secretary of Defense (OSD) concluded efforts on the Volume One Study of Program Manager Training and Experience published July 1, 2009. (Office of the Sectretary of Defense, 2009). This study made the following observation, "For decades, the Army, Navy, and Air Force have often sought to manage defense programs by assigning highly-motivated military officers as program managers, often with no more than a few months of acquisition training and modest acquisition experience. Such brevity in training and experience would be highly unlikely in the world of military operations or in the commercial world of managing large engineering development programs. Managers of major programs need the requisite training and experience to comply with the statutes, directives, and regulations, as well as to deal with the important technical and business challenges inherent in large advanced-technology programs."

While the aforementioned observation is discussed in terms of military officers, the observation extends to civilian program managers as well. Assuming that: (1) DAWIA certification is a requirement of assignment (either prior to assignment or within 24 months), (2) experience and training are a requirement of DAWIA certification, (3) DAU provides the same training to all students – military and civilian, then the reader can once again draw the conclusion that experience is the variable in the DAWIA certification process**.**

Four years after the Secretary of Defense announcement to grow the civilian Army program manager workforce and the OSD release of the Volume One Study of Program Manager Training and Experience (Defense, 2009), the Army acquisition workforce enterprise continues to grapple with changing demographics and the proficiency of within it.

In particular, despite the announcement to grow the Army program manager career field, the same snapshot of the civilian Army Program Manager workforce presented in 2009 when compared to that of March 31, 2013 (HCI, 2013) reflects a decline. Specifically, as reflected in Table 4, there was a 94 person reduction in the civilian Program Manager workforce. Meanwhile, the Army military Program Managers continued to increase.

Component	Service/Agency	Auditing	Business - Cost Estimating	Business - Financial Mgmt	Contracting	Facilities Engineering	Industrial/Contract Property Mgt	Information Technology	Life Cycle Logistics	Production, Quality & Manuf.	Program Management	Purchasing	S&T Manager	SPRDE - Systems Engineering	SPRDE - Program System Eng.	Test and Evaluation	Unknown	FY13 Q2 TOTAL
Army	Army Totals		274	2,186	7,900	1,663	60	2,310	8,641	1,686	2,435	373	260	9,561	55	2,079	11	39,494
Navy	Navy		486	1,676	4,177	5,421	59	1,816	4,747	1,948	4,246	461	383	18,859	50	2,604		46,333
	Marine Corps		40	194	404	31	3	216	319	1	467	67	4	383	5	46	1	2,181
	Dept of Navy Totals		526	1,870	4,581	5,452	62	2,032	5,066	1,949	4,713	528	387	19,242	55	2,650	1	48,114
Air Force	Air Force Totals		369	1,750	5,554	4	22	948	2,334	273	2,845	102	2,054	6,709	285	1,756		25,005
4th Estate	Defense Contract Management Agency		2	222	2,702		272	169	128	4,196	354	5	11	993	50	10	12	9,126
	Defense Logistics Agency		2	4	3,379	1	5	15	328	836	41	265	6	12		2	1	4,897
	Defense Contract Audit Agency	4,495			2						1	8						4,506
	Missile Defense Agency	1	58	240	213	23		52	69	46	322	1	2	631	1	267		1,926
	Defense Information Systems Agency		2	8	371			74	15		142	17		71		54		754
	Defense Acquisition University		13	43	146		2	14	42	7	167		1	45	2	8		490
	Defense Threat Reduction Agency			64	81			54			134	2	107	41		7		490
	DHP (TRICARE Management Activity & USUHS)		5	21	74			13		2	89	9		9		5		227
	Office of the Secretary of Defense & OSD Staff		1	14	41				14	1	73		1	29		5		179
	The Joint Staff			13	8			39	1		35		2	11	1	22		132
	Defense Commissary Agency			1	115			10			4					1		131
	Washington Headquarters Services				110						1							111
	DoD Education Activity				62							3						65
	Defense Finance and Accounting Service				64													64
	Defense Microelectronics Activity			4	18									23				45
	DoD Human Resources Activity				21						1	2						24
	Defense Security Cooperation Agency			1	15			1			2	1						20
	DoD Test Resource Management Center			4										1		14		19
	Defense Media Activity				17							2						19
	Defense Advanced Research Projects Agency				13													13
	Defense Security Service			1	9				1			1					1	13
	Defense Technical Information Center							3			6							9
	National Defense University				2						4							6
	DoD Inspector General											1						1
	ASD - Networks & Information Integration												1					1
	Pentagon Force Protection Agency				1													1
	4th Estate Totals	4,496	83	640	7,464	24	279	444	598	5,088	1,376	317	131	1,866	54	395	14	23,269
TOTAL		4,496	1,252	6,446	25,499	7,143	423	5,734	16,639	8,996	11,369	1,320	2,832	37,378	449	6,880	26	136,882

Table 4. Program Management Workforce Decline (from Appendix 1 DoD Strategic Human Capital Plan Update The Defense Acquisition Workforce, 2013)

Despite the civilian Army program manager decline, the emphasis on a high functioning workforce has not diminished. Current Senior Leadership thought on the state of the acquisition workforce substantiates this claim and posits that current DAWIA certification is not enough.

B. KENDALL: CERTIFICATION IS NOT ENOUGH

As Frank Kendall affirmed in the Under Secretary of Defense Memorandum to the DAW dated 13 November 2012, subject: Better Buying Power 2.0: Continuing the Pursuit for Greater Efficiency in Productivity in Defense Spending, DAWIA certification on its own is not enough (Kendall, 2012). Specifically, Mr. Kendall stated, "Our key leaders must have the required qualifications, not just certification, for the positions they hold – this includes the appropriate amount of relevant experience, education, and training. Current qualification standards do not emphasize the hands-on experience necessary to become truly proficient enough to take on the responsibilities associated with being a key acquisition leader."

What are these qualification standards and how can they be improved? What constitutes relevant experience and how is it acquired? How is "truly proficient" measured? Arguably, the answers to these questions provide the link between current credentialing processes and the identification of more efficient mechanisms for gauging aptitude of civilian Army Program Managers. Prior to probing these fundamental questions, it is important to have a common understanding of the relationships between:

- Certification and qualification
- Competencies and qualification standards
- Proficiency versus competency

C. REACHING A COMMON UNDERSTANDING

As Forsberg, Mooz and Cotterman (2005) state in their book, Visualizing Project Management, "there is a need for a common vocabulary at the project level because most enterprises don't have a common vocabulary and words are used differently across projects, companies and industries." As the researchers have found, many of these terms are often used interchangeably but have very distinct meanings. A common vocabulary provides context and framework for discussing/deciphering current DoD qualification initiatives to enable a comparable analysis to certification. In this manner, a common lexicon facilitates the decomposition of terminology to assess and evaluate the organizational system and provide recommendations upon which to act, resulting in the identification of best of breed practices for maintaining a proficient workforce while preserving the integrity of the Army civilian Program Manager profession.

1. Relationship of Certification and Qualification

The contemplation of the relationship of certification to qualification is not unique to the acquisition workforce. It is in fact a hotly debated topic in many diverse career fields ranging from electricians to sign language interpreters to commercial program managers. The core of the debate focuses on the fundamental question: can a person be certified without being qualified to do their job? And, as an extension of the question, does certification make for a more proficient worker?

Steve DelGrosso who directs IBM's Project Management Center of Excellence offers his viewpoint on certification. Specifically Mr. DelGrosso states, "Being a certified project manager doesn't necessarily make you better than any other project manager…It just indicates that you have a certain level of knowledge and expertise, and that you can work proficiently in a project environment" (Levison, 2010). This viewpoint is consistent with the Army DACM perspective that certification is the minimum requirement for a qualified Army civilian program manager and it is echoed by then-President of DAU, Katrina McFarland. Specifically, in response to Defense AT&L magazine's question, "What general advice do you have for new acquisition professionals?" Ms. McFarland answered "If you think about the trades: You start as an apprentice and then become a

journeyman and ultimately a master. Getting to the next level is not based on how much time you spend but by your mastery of specific tasks. You yourself will become more confident by having done it, and both good and bad experiences contribute to that. My advice is not to try to race to a management position, because one thing experience brings is that confidence" (Defense AT&L, 2011). In other words, certification is not the end of the program management journey – it is just the beginning.

Consider this debate from the perspective of the sign language interpreter. In their December 1999 article, "Interpreters: Certified or Qualified?" Beth Schoenberg and Karen Carlson offer a definition of qualification and provide their assertions concerning the debate (Schoenberg and Carlson, 1999). Specifically, they state, "One potential definition of 'qualified' would be able to perform the tasks of interpretation appropriately and accurately in a given situation."

Regarding the debate, they assert that "a certified interpreter may not be qualified for a particular assignment for a number of reasons." While sign language interpretation is outside of the realm of acquisition, the researchers maintain that there is a direct correlation to their reasons why an interpreter may be certified but not qualified for a particular assignment. Similarly, Army civilian Program Managers may be DAWIA certified but not qualified for the assigned position." Schoenberg and Carlson's reasons are cited below:

- The subject area or vocabulary may be unfamiliar to the interpreter
- There may be a cultural context which is unknown or uncomfortable to him/her
- The customer may have particular idiosyncratic communication needs that an interpreter cannot meet

Table 5 provides a parallel between Schoenberg and Carlson's rationale and the argument that Army civilian Program Managers can be certified but not qualified.

Schoenberg and Carlson Rationale That A Person Can Be Certified But Not Qualified	Application of Schoenberg and Carlson Rationale For Argument that Army Civilian Program Managers Can Be Certified But Not Qualified
Subject area or vocabulary may be unfamiliar to the interpreter	Not all acquisition situations are the same; different programs are in different stages of the life cycle and there are differences regarding how hardware centric programs are managed versus software programs
Cultural contexts may be unknown or uncomfortable	Army acquisition programs have different TRADOC Capability Managers (TCMs) and respective Centers of Excellence; functional context for capability gaps in the intelligence area are not the same as functional context for capability gaps related to the dismounted infantry Soldier
Consumer may have idiosyncratic communication needs which the interpreter cannot meet	There are peculiarities regarding management of MTOE weapon system programs versus CTA individual equipment; additionally there are peculiarities between developmental items and programs based on commercial-off-the-shelf (COTS) technology

Table 5. Schoenberg and Carlson Rationale Table

For purposes of analysis, the researchers have adopted the Schoenberg and Carlson definition of qualified. Specifically, qualified within the context of this thesis is defined as 'able to perform the tasks of program management appropriately and accurately in a given situation.'

While one is able to draw a parallel between industry and Army civilian program managers concerning the relationship of certification to qualification, the Senior Leadership view regarding the relationship of certification and qualification is less subjective. Section three of the Defense Acquisition Strategic Workforce Plan DoD articulates senior leadership views regarding the relationship of certification to qualification (Defense Acquisition University, 2010). Specifically, in this section DASWP, Deputy Secretary of Defense Ashton Carter maintains that certification creates a qualified workforce. Further he offers that a higher percentage of workforce certification combined with a robust certification process will result in a more qualified workforce.

The following is an extract of section three of the DASWP and the certification goals are summarized in Figure 7:

A highly qualified workforce is a critical element for achieving acquisition success. Certification standards drive workforce quality. This objective is focused on improving the percentage of workforce members that meet or exceed certification requirements. Establishing enterprise certification goals as a key metric will provide objective measures of acquisition workforce quality and will drive increased certification levels resulting in a more qualified workforce. Making certification standards more robust will also contribute to a more qualified workforce. The AT&L Core Plus framework enables implementation of a more rigorous certification program. Examples include specialized qualifications that will recognize expertise within a career field such as earned value management. The Department's evolving workforce quality strategy, to include the proposed Acquisition Qualification Standards (AQS), will enhance the current certification program. AQS will increase the supervisor and employee mentoring process to validate and improve job performance qualifications.

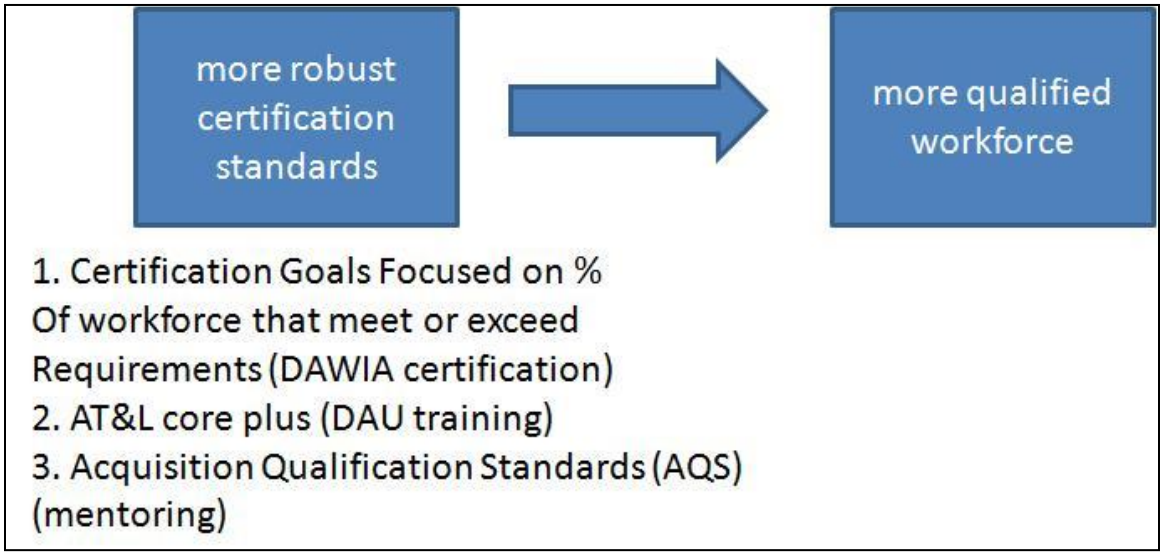

Figure 7. Certification Goals (after DAWSP Defense Acquisition University 2010)

This defined relationship should not be confused with the DoD initiative of Certification to Qualification, explained in later parts of this thesis.

2. Relationship of Competencies to Qualifications Standards

The Office of Personnel Management (OPM) defines competencies as "an observable, measurable pattern of skills, knowledge, abilities, behaviors and other characteristics that an individual needs to perform work roles or occupational functions

successfully." According to OPM, qualification standards are a "description of the minimum requirements necessary to perform work of a particular occupation successfully and safely. These minimum requirements may include specific job-related work experience, education, medical or physical standards, training, security, and/or licensure. They are not designed to rank candidates, identify the best qualified for a particular position, or substitute for an analysis of an applicant's knowledge, skills, and abilities/competencies" (OPM, n.d.).

Based on these definitions, an association between the two can be drawn as follows: competencies are to the individual as qualification standards are to the job. Similarly, if knowledge, skills and abilities (KSAs) are the predominant assessment of competencies then the two intersect at education, training and experience. Figure 8 provides a visual representation of the relationship between competencies and qualification standards.

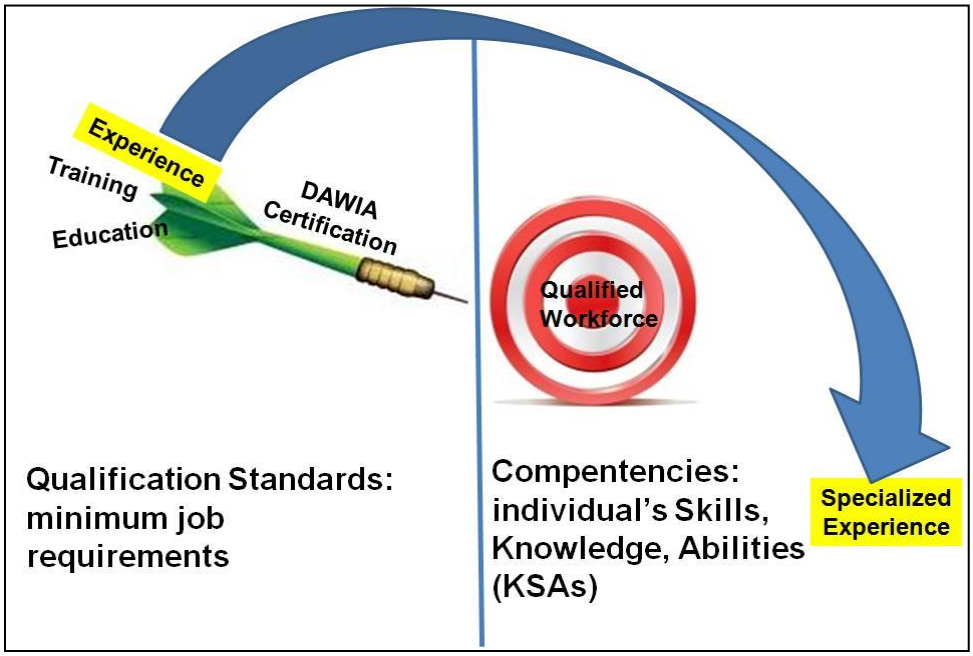

Figure 8. Comparison of Competency and Qualification Standards (After OPM and DAWIA II Brief)

Earlier sections explored the idea that, education and training are non-subjective factors for DACM evaluation, leaving experience as the variable. As annotated in Figure

8, experience can be assessed in terms of qualification (experience captured in the DAWIA certification) or assessed in terms of competency. The distinction is significant when comparing the DAWIA certification process to current qualification initiatives and Senior Leadership views. It is also significant when offering conclusions and recommendations for identifying best of breed practices.

3. Relationship of Proficiencies to Competencies

In her briefing on Workforce Proficiency delivered on January 25, 2012, the DAU Dean of the Mid-Atlantic Region, Ms. Barbara Smith distinguishes proficiency and competency in the following manner: "Competency lists form the basis for proficiencies. Proficiencies are:

- Written at the competency/technical element level
- Product or performance based demonstrable activity
- Application of work and KSAs to successfully perform." (Smith, 2012)

In this manner, proficiencies are derived from competencies and competencies provide the foundation for qualifications. This idea is explored further in the DAU Certification to Qualification Initiatives section of this paper.

D. CURRENT INITIATIVES

Armed with a common vocabulary and contextual framework, let us address current qualification initiatives for program managers within DoD. While there are several emerging qualification initiatives, due to availability of information, analysis between DAWIA certification and current initiatives will focus on the following:

- DAU Certification to Qualification (C2Q)
- Acquisition Qualification Standards (AQS)

Additionally, understanding the intricate relationship between qualification standards and competency, the following Federal Government competency initiatives will be examined to further facilitate analysis:

- Federal Acquisition Institute (FAI) competencies
- National Aeronautics and Space Administration (NASA) competencies
- AT&L Competency Management

1. DAU Certification to Qualification Initiative (C2Q) and Acquisition Qualification Standards (AQS)

As stated by Barbara Smith, the intent of the certification to qualification initiative is to ensure that "everyone who touches acquisition in a meaningful way is qualified and proficient in the skill sets required to achieve successful acquisition results" (Smith, 2012).

To this end, DAU published a briefing on 13 May 2013 with regard to the C2Q effort and how it relates to Better Business Process (BBP) 2.0 (Smith, 2013). As summarized from the briefing, the competencies for each functional area will be defined and finalized by July 1, 2013. Approximately one year later DAU will translate competencies to qualification plans.

An excerpt from the 13 May 2013 briefing is provided below:

- Functional leads, with Director, HCI and the Components will define and finalize, the competencies (skill sets) for each functional area (systems engineering, logistics, contracting, etc.) by July 1, 2013.

- DAU will initiate by September 1, 2013 the action to translate the competencies described above into on-the-job tools and processes to develop individual qualification plans for all members of the workforce, at every level and tie their performance to these plans. DAU will complete this by July 1, 2014.

Figure 9 also extracted from the 13 May 2013 briefing provides a high-level overview of the DAU C2Q initiative.

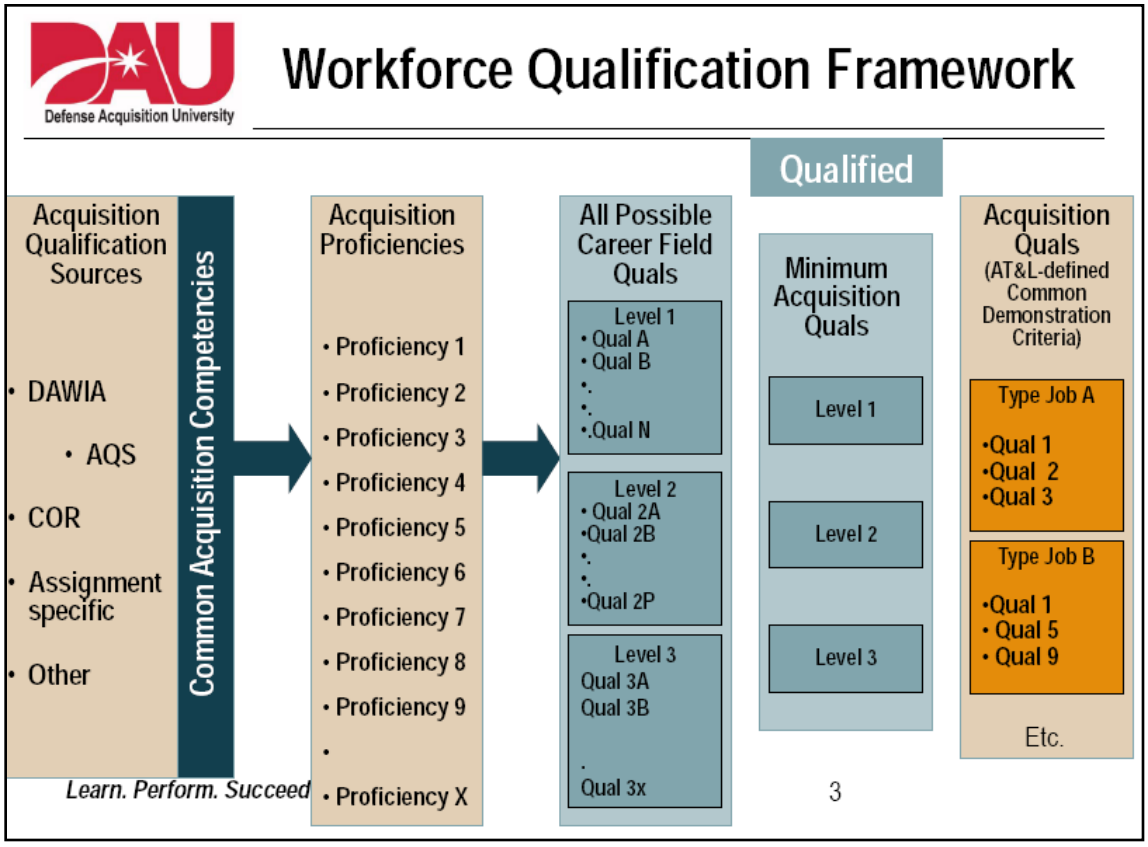

Figure 9. Qualification Framework (from Workforce Proficiency 2013)

The emerging AQS effort led by OSD under the auspices of the DoD Acquisition Management Functional Integrated Product Team (FIPT) serves as the DAU C2Q focal point for the program management career field for both civilians and military personnel.

According to the pre-deployment draft of the Program Manager (PM) AQS Users Guide Version 4.c dated 2013 (OSD, 2013), the purpose of AQS is to be "a professional development tool, complementary to the DAWIA certification process, which

standardizes and facilitates achieving proper qualification to lead and execute programs supporting the warfighter." Further the PM AQS Users Guide Version 4.C states, that "PM AQS represents an integral, well-structured, and dynamic qualification process geared towards defining what 'experience' means in terms of DAWIA certification… in the past the experience for DAWIA certification was "vaguely defined such as general program office experience with no reference to position or duties. PM AQS helps convert that generality into specific experiences and expectations aligned with specific competencies."

Workbooks that contain tasks to be performed and demonstrated on the job serve as the basis for the initiative and are segmented into the categories of fundamental, applications and experience. Tasks in the fundamental category cover basic acquisition policy, processes, practices and principles. Application tasks are a demonstration of "on the job" experience and involve but are not limited to "resources, events, functional elements, stakeholders and artifacts." According to the pre-deployment AQS Program Manager Workbook dated 2 January 2013 version 4.6c (OSD, 2013), the experience section "separates it [AQS] from most previous acquisition workforce development approaches in that it requires candidates to demonstrate thorough understanding and skills needed to perform specific, significant functions…the candidate is required to physically participate in teams and/or lead significant efforts, integrating what was learned in the fundamentals and applications sections."

The competencies assessed include:

- Executive Leadership
- Programmatic Execution
- Business Management
- Technical Management

A queried assessment conducted by a qualified subject matter expert can then be rated against pre-determined metrics. Due to the pre-deployment status of this program, an extraction of the rubric and competency threads found in the AQS Program Manager Workbook dated 2 January 2013 version 4.6c (OSD, 2013) provided in Table 6 may be updated. Competency threads are defined in the workbook as "related line item by certain

AQS Competency Categories, Knowledge Areas, and Topics." A sample category/area and topic threads is found in Tables 7 and 8.

1 Undeveloped	2 Emerging	3 Expanding	4 Proficient	5 Excellent
• Attempts to complete the task, but demonstrates a major weakness in organization • Provides little or no accurate response to the activity	• Attempts to address the task • Provides a poorly organized response to the activity • Lacking focus	• Addresses most aspects of the task or addresses all aspects in a limited way • Provides a satisfactory response to the activity • Demonstrates a generally organized response to the activity	• Addresses all aspects of the task • Provides a well-developed response to the activity, but may not support all aspects of the task evenly • Demonstrates logical and clearly organized response to the activity	• Addresses all aspects of the task • Provides a well-developed response to the activity • Consistently demonstrates a logical and clearly organized response to the activity

Table 6. Assessment Rubric (from AQS Users Guide Version 4.c 2013)

Sample Category / Area / Topic Threads

AQS Competency Category	Thread Area	Topic	Fundamentals Tasks	Application Tasks	Experience Tasks
EXECUTIVE LEADERSHIP	Team Leadership	Interpersonal Skills	101.34 (E), 102.38 (I)	204.1through 204.17	321, 328
		Team Building/Performance Management	102.35 (I), 102.36 (I), 102.40 (I), 102.42 (I), 103.41(I)	203.1through 203.10	323, 328
PROGRAMMATIC EXECUTION	Scheduling	IMS Elements	101.23 (E), 101.24 (E), 103.30 (S)	201.18, 205.23, 205.24	301.1, 301.1.1, 303.1.3
		Risk Assessment	101.1(E)	201.1	301.1, 301.1.2
PROGRAMMATIC EXECUTION	Earned Value Management (EVM)	TPMs	101.18 (E), 102.27 (I)	201.19, 203.3, 205.23, 205.25	303, 303.1.5
		CPI/SPI Trends	103.29 (S), 101.3 (E), 101.19 (E), 101.23-101.27 (E), 103.3 (S)	201.19, 205.23, 205.25	303, 303.1.2, 303.1.7, 305.1.2
PROGRAMMATIC EXECUTION	Risk Management	Risk Management	101.10 (E), 101.23 (E), 102.4 (I),	201.21, 201.25, 202.10, 203.9	305, 305.1, 322.5 (I&S)
PROGRAMMATIC EXECUTION	Program Metrics	Program Metrics	103.20 (S), 103.34 (S), 103.38 (S), 103.40 (S)	201.18, 202.10, 203.3, 205.2, 205.22, 205.25, 205.26	306, 306.1.3
PROGRAMMATIC EXECUTION	Program Policy & Reports	Acquisition Strategy	104.4 (S), 104.5 (S)	204.13, 204.14, 205.13	307, 307.1.4, 307.1.5
		DoD Reporting Requirements	101.28 (E), 103.14 (S)	202.12, 204.13, 204.14, 205.20	307, 307.1, 307.6
BUSINESS MANAGEMENT	Lifecycle Costs	Affordability/Should Cost	101.4 (E)	201.22	302, 302.2.5
		Cost Estimating	101.4 (E), 101.20 (E), 101.27 (E)	201.1, 205.6, 205.7	302
BUSINESS MANAGEMENT	Business Financial Management	N/A	101.11(E), 101.20 (E), 101.28 (E),	104.7 (E), (104.8), 201.1(I), 201.7(I), 201.8(I), 205.20(I),	302..1.1(S), 307.1.1(I), 307.1.2(I), 317.1(I), 317.1.1(I), 317.1.2(I)317.1.3(I), 317.1.4(I), 317.1.5(I), 317.1.6(I), 317.1.7(I), 327.5(I),
BUSINESS MANAGEMENT	Contracting	Solicitation & Award	102.5 (I), 102.18 (I), 102.19 (I), 103.12 (S), 103.13 (S), 103.22 (S), 103.31(S), 103.32-103.36 (S)	201.1, 201.12-201.17, 201.23, 202.1, 202.3, 204.2, 204.6, 204.7, 205.11	316, 316.1.8-316.1.10, 326
		Post Award Management	102.5 (I), 102.18 (I), 102.19 (I), 103.12 (S), 103.13 (S), 103.22 (S), 103.31(S), 103.32-103.36 (S)	201.1, 201.12-201.17, 201.23, 202.1, 202.3, 204.2, 204.6, 204.7, 204.5	313.1.3, 316, 316.1.11-316.1.16, 326
		Legal	102.5, 103.13, 103.31, 103.32	202.1, 203,2, 204.2, 204.5, 204.6, 204,7	318.1.2, 316.1.14, 326.1
		Ethics			318.1, 318.1.1
BUSINESS MANAGEMENT	International Programs (IP)	N/A	101.13 (E), 101.14 (E), 101.15 (E), 102.8 (I), 102.9 (I), 103.7 (S), 103.8 (S), 103.09 (S)		
TECHNICAL MANAGEMENT	Test & Evaluation	Test & Evaluation	101.7 (E), 101.29 (E), 101.31(E), 102.12 (I), 102.23 (I)	202.8,202.14, 202.16, 203.5, 205.17, 205.18	312

Table 7. Category /Area /Topic Threads (from AQS Users Guide Version 4.c 2013)

AQS Competency Category	Thread Area	Topic	Fundamentals Tasks	Application Tasks	Experience Tasks
TECHNICAL MANAGEMENT	Configuration Management	N/A	101.24 (E), 102.5 (E), 102.25 (I), 103.17 (S),	201.20, 203.10	308, 324.1, 301.11
	Life Cycle Logistics	Logistic Support Practices	102.25 (I), 103.26 (S), 103.5 (S), 103.15 (S), 103.16 (S), 103.17 (S) 103.18 (S), 103.19 (S), 103.25-103.28 (S), 101.8 (E), 101.17 (E), 101.16 (E), 101.29 (E), 102.11(I), 102.16 (I), 102.17 (I), 102.21(I)	205.9, 205.10	314
TECHNICAL MANAGEMENT	Prorgram Security	Information Assurance		203.4	315.11
		Security Classification Guide		203.4, 205.5	315.12
		Contract Documents			315.12
		Program Protection Plan			315.13
		OPSEC & Critical Program Information		203.4, 205.5	315.14
TECHNICAL MANAGEMENT	Production Quality Manufacturing	Work Breakdown Structure Development	101.23(E)	201.19, 201.25, 204.6, 204.7, 205.23	
		Quality Control Planning Fundementals	101.7(E), 101.9(I), 101.10 (E), 102.12(I), 102.21(I), 103.26(I), 102.23(E)	204.6, 204.7, 205.17, 205.18	311.1, 313.13, 313.14, 313.12
		Six Sigma	103.25(I)		
TECHNICAL MANAGEMENT	Science, Technology, Engineering Management (STEM)	Systems Engineering	101.2, 101.16, 102.22, 102.27	201.19, 202.2, 202.3, 202.6, 202.7, 203.4, 204.8, 205.14, 205.23	309
		Science and Technology	102.24, 102.28, 102.30	202.15, 204.9, 204.10, 205.15, 205.16	311
TECHNICAL MANAGEMENT	Requirements Management & Technical Reviews	Technical Reviews	101.29 (E), 104.11(E)	202.2, 202.4-202.9, 205.14	304, 304.1, 304.16
		JCIDS Process/Documents	102.33 (S), 102.34 (S), 103.32 (S)	201.24, 205.5, 202.15	304

Table 8. Continued Category/Area/Topic Thread for Technical Management (from AQS Users Guide Version 4.c 2013)

DAU plays a prominent role in the PM AQS effort. Figure 10, extracted from a standard FIPT charter, demonstrates the high level interplay between DAU and the FIPT for accomplishing this mission (FIPT, 2012).

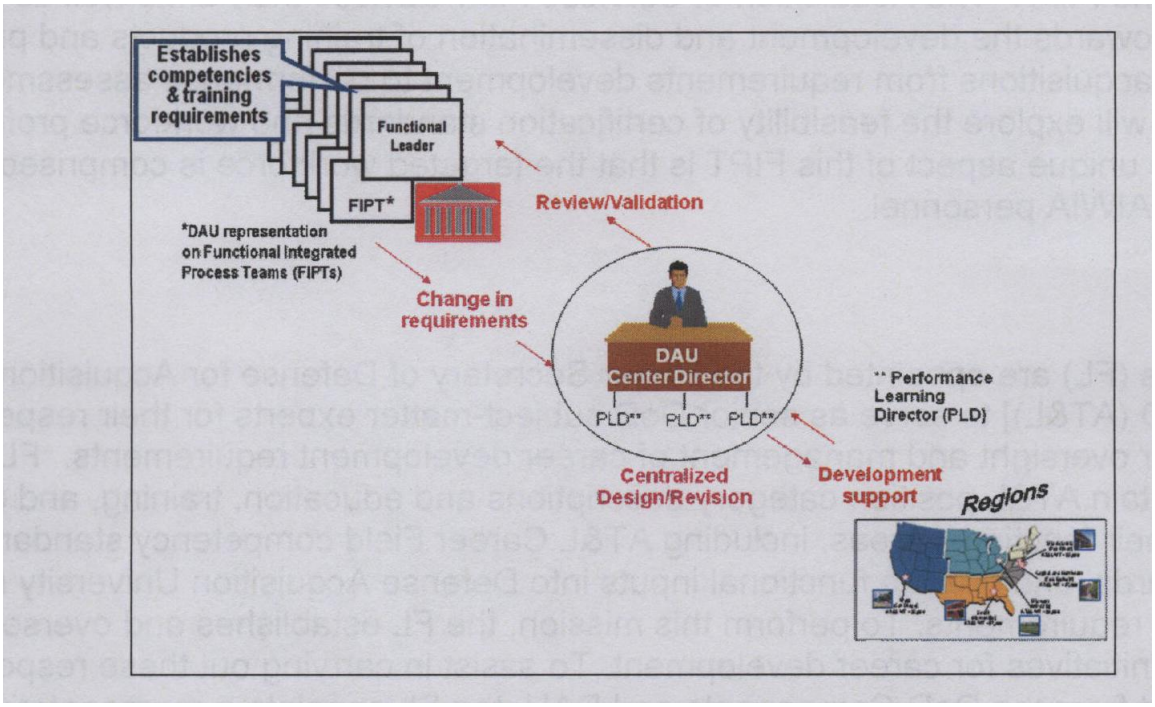

Figure 10. Relationship of DAU and AQS (from Acquisition of Services Functional Integrated Product Team (FIPT) Charter 2012)

The AQS program is currently in the infancy of its pilot stage of implementation within the Army, Air Force and Navy. Per the OSD office responsible for the initiative, timelines are under revision and unavailable at time of report. A mid-to-late August 2013 FIPT expects to provide established timelines.

While the DACM News, Issue 3 April2013 (USAASC, 2013) provides the most recent wide-spread announcement to the workforce, the first instance of AQS results in the recommendation of the Volume One of the OSD Program Management Certification Study dated July 1, 2009 (Defense, 2009) conducted under the direction of Mr. David Ahern, then-Director, Portfolio Systems Acquisition Office of the Secretary of Defense.

The Ahern study was release approximately six months later than a study conducted by the Center for Naval Analyses (CNA) under the direction of DAU. In this study, the CNA study developed a Program Management Competency Model and validated the model in part by asking program manager participants a standardized set of questions to include items related to frequency, criticality, and proficiency for each

competency listed in the CNA Competency Model. The CNA Report of October 2008 is entitled: Improving the Certification, Training, and Development of the AT&L Workforce, October 2008. The majority of the CNA samples were government civilian personnel.

2. Federal Acquisition Institute (FAI) Competencies

In January 2007, the FAI released recommendations on the Program and Project Manager certifications. While this report focused on Program and Project Managers in the Information Technology field, they recommended "federal certification for program and project managers based on achievement of essential competencies" (Federal Acquisition Institute, 2007).

As the report proclaims, the intent of the recommendations is to provide a results-oriented, competency based program to support achievement of an agency's mission through sound acquisition program and project management.

Recommended Level III Senior competencies identified by the report are:

- knowledge and skills to manage moderate to high-risk programs or projects that require significant acquisition investment and agency knowledge and experience
- ability to run a program and create an environment for program success
- ability to manage the requirements process, overseeing junior level team members in creation, development, and implementation
- expert ability to use, manage, and evaluate management processes
- expert ability to manage and evaluate the use of earned value management as it relates to acquisition investments

The recommendations are a result of the PM Certification Working Group which was formed under the authority of Office of Management and Budget (OMB), Office of Federal Procurement Policy (OFPP) Policy Letter 05–01. The working group was formed in December 2004 and was co-chaired by the FAI and the Department of Homeland Security (DHS).

As stated in Appendix D of the report, "the group began with a brainstorming session to identify what the program might mean and a general discussion regarding the necessity of acquisition skills for program and project managers in government work. The questions also touched on the importance of establishing and promoting program and project management best practices in government." Further as stated, "The working group saw establishing competencies, training and experience standards for government through a federal certification in acquisition skills for program and project managers as a means to enhance the workforce capabilities and assist agencies in meeting their mission requirements" (Federal Acquisition Institute, 2007). The working group also recognized the benefit of establishing a common set of acquisition program and project management principles and best practices to be effected through a common set of competencies.

Sources were from private industry, academic research and the Federal Government such as NASA, Department of Energy (DOE) and the Central Intelligence Agency (CIA). The working group also considered input from key non-government organizations such as the International Council on Systems Engineering (INCOSE) and the Project Management Institute (PMI).

While the competencies recommended by FAI in 2007 were amongst the first of its kind, the recommendation also introduced an important concept – the whole program manager requiring specialized functional skills, a distinction between a basis of program management skills augmented by specialized functionalities. As the group reported, to put together the "whole" program manager, there were a variety of integrating/supporting skills requiring a working knowledge and skills to plan and execute a project or program. The following list of competency topics represents the basic skills, integrating/support skills and specialized skills necessary to initially establish the program and project management competencies. Most of the skills require the program manager to manage or develop practices or breadth of knowledge but do not require the depth of knowledge. For example, the skill requires knowledge of terminology and high level concepts for cost estimation but does not require the ability to perform as a cost estimator. Table 9 is extracted from appendix I of the FAI recommendation. Table 9 reflects Level III competencies followed by proficiency:

ESSENTIAL PROJECT AND PROGRAM MANAGEMENT COMPETENCIES FOR GOVERNMENT SENIOR LEVEL
Management Processes – Manage and evaluate the application of agency acquisition policy in support of assigned missions and functions and how agency acquisition professionals balance risk, the many factors that influence cost, schedule, performance, attention to lessons learned, and metrics to include the tailoring of acquisition policies to ensure quality, affordable, supportable, and effective systems/products are delivered, emphasizing: -Requirements Process -Concept Selection Process -Technology Development Process -Core Management Skills & Processes -Total Ownership Cost(OMB A-94) -Risk & Opportunity Management -Market Research -Communications Management -Working Groups and Teams
Systems Engineering – Manage and evaluate the application of the scientific, mgmt, engineering & technical skills used in the performance of systems planning, research and development.
Test and Evaluation (T&E) – Manage and evaluate the application of efficient and cost effective methods for planning, monitoring, conducting, & evaluating tests of prototype, new, or modified systems equipment or materiel, including the need to develop a thorough T&E strategy to validate system performance through measurable methods that relate directly to requirements and to develop metrics that demonstrate system success or failure.
Life Cycle Logistics (LCL) – Manage and evaluate the application of performance-based logistic efforts that optimize total system lifecycle availability, supportability, and reliability/maintainability while minimizing cost and logistic footprint, and interoperability.
Contracting – Manage and evaluate the application of the supervision, leadership and management processes/procedures involving the acquisition of supplies and services; construction, research and development; acquisition planning; cost and price analysis; solicitation and selection of sources; preparation, negotiation, and award of contracts; all phases of contract administration; and termination or closeout of contracts, including legislation, policies, regulations, and methods used in contracting, and business and industry practices. -Contract approach -Prepare Requirements & Support Documentation -Prepare & Issue Solicitation -Perform Source Selection -Administer Contract -Performance-based Service Agreements
Business, Cost Estimating & Financial Mgmt – Manage and evaluate the

Table 9. FAI PM Competencies for Senior Level (from Federal Acquisition Certification for Program and Project Managers 2007)

3. National Aeronautics and Space Administration (NASA) Competencies

In response to the Rogers Commission and the fateful Challenger accident, NASA established its Academy of Program/Project & Engineering Leadership (APPEL) in 1986 to develop an agency-wide professional development program for project management (Bonnila, n.d.). As with the FAI competencies, NASA project management competencies are coupled with functional competencies. Specifically, the NASA devised its project management competency model through a collaborative process founded on requirements derived from interviews with NASA project managers and systems engineers. In this manner, NASA gathered information through a developing a curriculum (DACUM) methodology and practitioner focus groups. DACUM, according to the DACUM website, is a "storyboarding process that provides a picture of what the worker does in terms of duties, tasks, knowledge, skills, traits and in some cases the tools the worker uses" (DACUM, 2001). The resultant information is consolidated in chart format and usually includes information on critical and frequently performed tasks and the training needs of workers. The resultant DACUM product served as a basis for the draft competency model.

Validation of the competency model included aligning it with NASA policies and procedures as well as existing project manager competency models at NASA field centers and leading external organizations (NASA, 2012). Once validated, the APPEL created performance-level descriptions to serve as career guidelines. Figure 11 is an extract of the September 24, 2012 revision 3.0 Academy of Program/Project & Engineering Leadership Project Management and Systems Engineering Competency Framework.

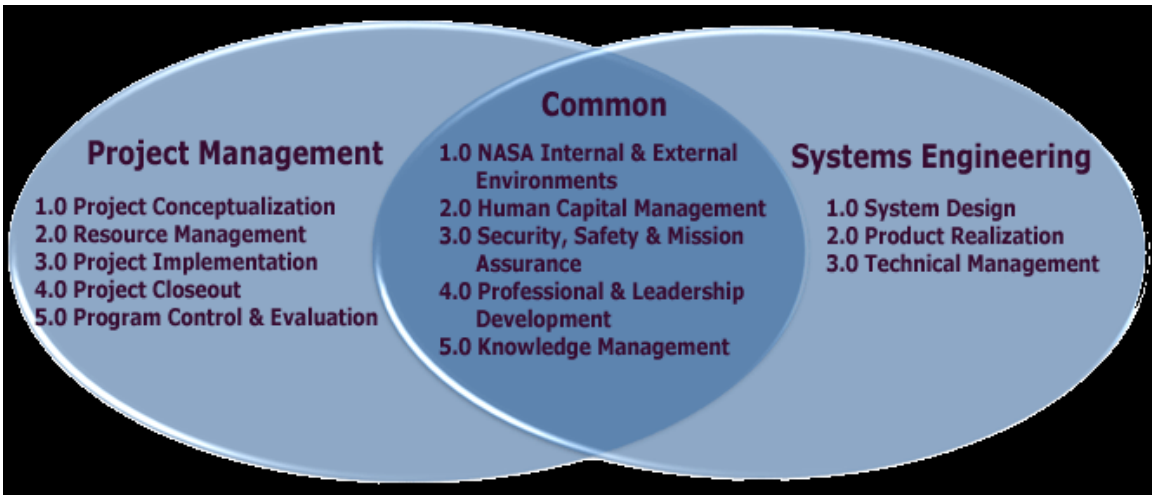

Figure 11. APPEL PM and SE Competency Framework (from Project Management and Systems Engineering Competency Framework 2012)

The Venn diagram overlaps with a set of common competencies between the project manager and system engineer. NASA's primary resource for soliciting for individuals to fill these positions is the NASA competency management dictionary CMS-DOC-01 Rev.7A (Office of Human Capital Management, 2009). Specifically, the NASA Competency Management System (CMS) is a collection of business processes and tools that are used to measure and monitor the Agency's corporate knowledge base. As defined by APPEL, a competency is a conceptual representation of a body of knowledge. APPEL reports that competencies are used to categorize the capabilities of an employee, identify the knowledge requirements of a job position, forecast the workforce requirements for a project, and stimulate the interaction and sharing of knowledge across the Agency.

A key element of the NASA competency management system is the competency management system dictionary. This dictionary, similar to a software data element dictionary, aggregates a set of pre-defined competencies into an aggregate list. The Competency Management System (CMS)-DOC-01 Rev. 7A issued October 8, 2009 outlining the Program/Project Management Competency Model is as follows:

Ref	Section	Competency	Competency Type
1	6.3.1.1	Project Proposal	Developmental
2	6.3.1.2	Requirements Development and Management	Developmental
3	6.3.1.3	Acquisition Management	Developmental
4	6.3.1.4	Project Planning	Developmental
5	6.3.1.5	Cost-Estimating	Developmental
6	6.3.1.6	Risk Management	Developmental
7	6.3.2.1	Budget and Full Cost Management	Developmental
8	6.3.2.2	Capital Management	Developmental
9	6.3.3.1	Systems Engineering	Developmental
10	6.3.3.2	Contract Management	Developmental
11	6.3.4.1	Stakeholder Management	Developmental
12	6.3.4.2	Technology Transfer and Commercialization	Developmental
13	6.3.5.1	Tracking/Trending of Project Performance	Developmental
14	6.3.5.2	Project Control	Developmental
15	6.3.5.3	Project review and Evaluation	Developmental
		ProgramMgmt/SysEngCommon Competencies	
16	6.5.1.1	Agency Structure, Mission, and Internal Goals	Developmental
17	6.5.1.2	NASA Procedures and Guidelines	Developmental
18	6.5.1.3	External Relationships	Developmental
19	6.5.2.1	Staffing and Performance	Developmental
20	6.5.2.2	Team Dynamics and Management	Developmental
21	6.5.3.1	Security	Developmental
22	6.5.3.2	Workplace Safety	Developmental
23	6.5.3.3	Safety and Mission Assurance	Developmental
24	6.5.4.1	Mentoring and Coaching	Developmental
25	6.5.4.2	Communication	Developmental
26	6.5.4.3	Leadership	Developmental
27	6.5.4.4	Ethics	Developmental
28	6.5.5.1	Knowledge Capture and Transfer	Developmental
29	6.5.5.2	Knowledge Sharing	Developmental

Table 10. NASA Competency Management System Dictionary (from NASA Competency Management Dictionary 2009)

Within the NASA Competency Model are four levels of proficiency. These levels of proficiency gauge of an individual's depth of expertise in a competency. Tier III – Proficient and Tier IV- Subject Matter Expert establish the minimum baseline.

The proficiency tiers have two applications. First, according to NASA, the tier levels will be used by employees, managers, professional communities, functional

offices, and leadership to help locate expertise in the agency in a reliable and systematic way (Office of Human Capital Management, 2009). Second, tier levels are used in the employee development process to identify gaps and provide training opportunities to refine or enhance the individual's level of expertise in a selected competency, similar to OSD Acquisition, Technology and Logistics (AT&L) Competency Management System discussed below.

4. AT&L Competency Management

In October 2008 an assessment entitled, "Improving the Certification, Training and Development of the AT&L Workforce Program Management Career Field: Competency Validation and Workforce Assessment", aided by the CNA, determined that the competencies listed in Table 11 received the highest ratings across frequency, criticality and proficiency (AT&L and Center for Naval Analyses, 2008):

Competency
1.8, Working Groups and Teams
1.6, Risk and Opportunity Management
1.2, Concept Selection Process (Pre-Project/Pre-Program); Technology Development Strategy
8.3, Prepare and Issue Solicitation
8.2, Prepare Requirements & Support Documentation

Table 11. Competencies with Highest Ratings (from Improving the Certification, Training and Development of the AT&L Workforce Program Management Career Field: Competency Validation and Workforce Assessment, 2008)

Further, the assessment also found that "where you sit" may determine "where you stand" with respect to competencies. In particular, findings from the same assessment were as follows:

1.) Major Service Component Affects Each Program Manager's Job. There were differences in "frequency, criticality and proficiency across each of the Major Service Components." This finding suggests that a one-size fits all certification may not may not be merit-worthy.

2.) Assignment Type Affects Each Program Manager's Perception of the Job. According to the report, PMs see their work very differently depending on the type of program in which they work. "A PM's Assignment Type, whether Weapons Systems, Business Management, Services, or International, affects his or her job greatly, as reflected in differences in how PMs rate frequency, criticality, and proficiency of the competencies."

3.) Job Title Affects Each Program Manager's Perception of the Job. Differences were also shown in the way a PM carries out his or her duties across job titles (PM or equivalent, deputy program manager (DPM) or equivalent, integrated process team (IPT) leader, and all others). For instance, those who indicated their job titles as PM or equivalent and DPM or equivalent rate higher across frequency, criticality, and proficiency of Managing Programs and People higher than those with job titles labeled All others.

A similar find for item two above was outlined in a Master's Thesis for the United States Air Force Institute of Technology Wright-Patterson Air Force Base (AFB) OH Graduate School of Engineering and Management. The thesis entitled, "An Analysis of Competencies for Managing Services and Technical Programs" dated 19 March 2008 found the following: In 42 out of 63 instances (67%), the criticality scores had statistically significant differences. Only four of those 42 competencies were rated "more critical" by Science & Technology (S&T) PMs; the other 38 of the 42 (90%), were rated "less critical," with statistically significant lower scores than those of their acquisition PM counterparts (Goehring, 2008). The analysis suggests the needs for S&T PM workforce management initiatives.

For the AT&L Competency Management System, the competencies continue to be refined and provide support to the C2QCertification to Qualification initiative. While the competencies themselves are somewhat immature, the overarching governance related to this effort is more complete. As presented by the DACM office in a briefing to the AT&L Workforce Career Management entitled, "Competency Management Overview" (Higgins, 2012). Figure 12 provides a visual and verbal extract of the functioning governance structure:

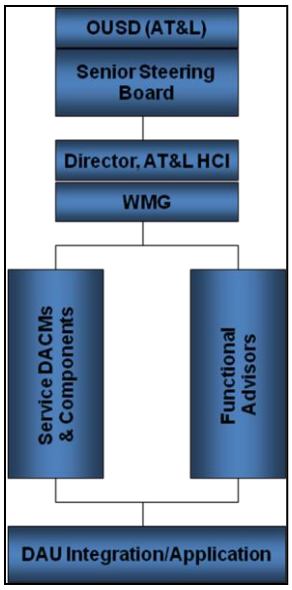

Figure 12. Competency Management Governance Structure (from Competency Management Overview, 2012)

- The Under Secretary of Defense (USD)AT&L chairs the AT&L Workforce Senior Steering Board which is comprised of functional and component senior acquisition leaders as well as senior leadership from OSD P&R
- The Director, Human Capital Initiatives (President, DAU) supports the USD (AT&L) by providing leadership on human capital initiatives, ensuring AT&L community alignment and integration of effort to support Department objectives, and managing implementation of AT&L department-wide workforce policy and initiatives
- The USD (AT&L) Workforce Management Group (WMG), chaired by the Director, AT&L HCI, further provides an integrated approach to governance and advises the USD (AT&L) on workforce matters, to include competency management
- The USD AT&L Functional Advisor (FA) is a senior acquisition functional community leader and is responsible to the USD (AT&L) for ensuring currency of community-wide competency requirements
- The DAU serves as the AT&L corporate university and works closely with the FAs, FIPTs and components to ensure that workforce capability requirements are translated into a powerful learning environment for the AT&L workforce.

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V. COMPARATIVE ANALYSIS

Figure 13, originally introduced to describe the relationship of competencies to qualification standards, is now modified below to reflect the relationship of proficiency as well as to distinguish between process and the individual. This figure provides a quick reference for analysis between DAWIA certification compared to the C2Q/AQS initiatives and a reference between DAWIA certification compared to FAI, NASA and AT&L competencies. AQS is categorized as a subset of the C2Q effort. As such, it is combined for analysis.

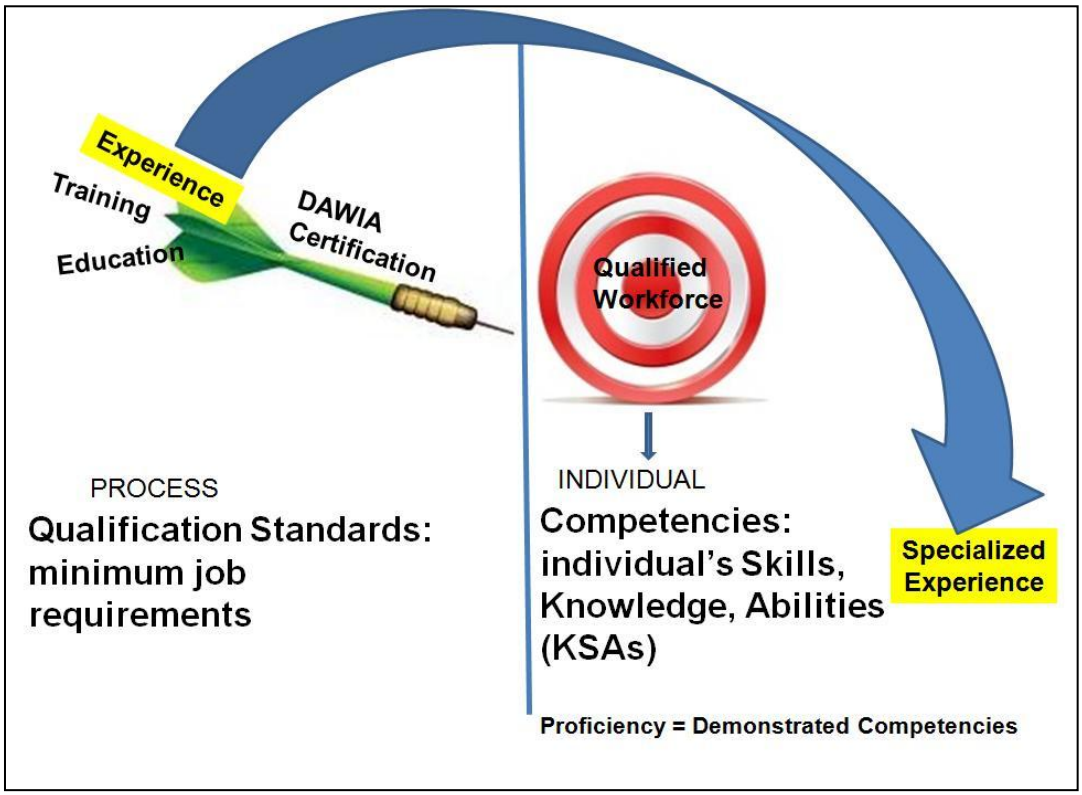

Figure 13. Modified Relationship of Competencies to Qualification and Specialized Experience (After OPM and DAWIA II Brief)

Table 12 summarizes DAWIA certification for civilian Army Program Managers compared to the current/emerging C2Q and the AQS.

Tenets	DAWIA Certification for Army Civilian Program Managers	Certification to Qualification (C2Q)/Acquisition Qualification Standards (AQS)
Availability/Workforce Incorporation	1990	Emerging
Education	N/A	N/A
Training	• DAU (Level I, II, III) • Core Plus (Optional) • Leaders as Coaches (Optional)	• DAU (Level I, II, III) • Mentoring/Coaching (Required)
Experience	• Job pre-requisite (prior to employment or within 24 months) • DACM evaluated/AF automated • Coded Positions • Non-Standardized Position Categories (0301/0340/0341/0343)	• Focus on individual development post employment and DAWIA certification • Demonstrated proficiencies in core program management skills • Demonstrated proficiencies in specialized skills • Standardized competencies • Standardized proficiencies

Table 12. Acquisition Qualification Standards (after DAWIA II Brief and Smith)

The similarities between DAWIA certification and C2Q/AQS fall into the training arena, whereas, the majority of the differences directly relate to experience. Similarities and differences are enumerated below:

Similarities between DAWIA certification and C2Q/AQS

- DAU provides formal/non-on-the-job training for both DAWIA certification and C2Q/AQS
- Both require some level (though varying) of a demonstration of skills– DAWIA certification through completion of DAU training and subsequent mastery of class learning objectives and C2Q/AQS through proficiencies
- Mentoring is available for both initiatives (though optional for DAWIA certification and mandatory as part of C2Q/AQS)

Differences between DAWIA certification and C2Q/AQS

- Mentoring is optional for DAWIA certification and mandatory as part of C2Q/AQS
- DAWIA certification experience is a requirement for employment whereas C2Q/AQS is presently focused on experience for individuals in the position
- Autonomous evaluation by the DACM determines experience applicable to DAWIA certification whereas experience is evaluated by individual's supervisor or SME under C2Q/AQS
- DAWIA certification requires coded positions for acquisition jobs but they are non-standard such as a Program Manager can be a 0301, 0340, 0341,0343; in contrast C2Q/AQS has standardized competencies for standardization of experience

Table 13 summarizes DAWIA certification for civilian Army Program Managers compared to the FAI competencies, NASA competencies and AT&L competency management.

Tenets	DAWIA Certification for Army Civilian Program Managers	FAI Competencies	NASA Competencies	AT&L Competency Management
Availability/Workforce Incorporation	1990	2007	2009	Emerging ; CNA conducted 2008 study
Education	N/A	N/A	N/A	N/A
Training	• DAU (Level I, II, III) • Core Plus (Optional) • Leaders as Coaches (Optional)	N/A	N/A	N/A
Experience	• Job pre-requisite (prior to employment or within 24 months) • DACM evaluated/AF automated • Coded Positions • Non-Standardized Position Categories (0301/0340/0341/0343)	• Demonstrated competencies pre- DAWIA certification • Demonstrated proficiencies in core program management skills and in specialized skills (PM/IT) • Standardized competencies • Standardized proficiencies • Breadth but not depth of knowledge	• Demonstrated competencies post- DAWIA certification • Standardized competencies documented in the Competency Management Dictionary to code positions (specific requirements versus generic categories) • Focus on PM/SE individuals • Inventory of Employee Competencies	• Demonstrated competencies post-DAWIA • Demonstrated proficiency in core program management skills • Supports Certification to Qualification/ AQS initiatives

Table 13. Comparison between DAWIA and FAI, NASA Competencies and AT&L Competency Management (After DAWIA II Brief, Federal Acquisition Institute, NASA and AT&L and CNA)

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The similarities between DAWIA certification and FAI competencies, NASA competencies and AT&L competency management are minimal. In fact, the sole

similarity is between the two can be found in the DAWIA certification experience and FAI competencies experience. In this manner, both focus on experience as a pre-requisite for job employment and not in terms as a tool for enhancing experience. The differences between the two are also experienced related. Similarities and differences are enumerated below:

Similarities between DAWIA certification and FAI competencies, NASA competencies and AT&L competency management

- DAWIA certification experience and the FAI competencies experience are viewed as pre-requisite for job employment and not in terms of enhancing individual experience

Differences between DAWIA certification and FAI competencies, NASA competencies and AT&L competency management

- DAWIA certification experience is a requirement for employment whereas AT&L competency management is presently focused on enhancing experience for individuals in position
- DAWIA certification experience focuses on only one homogeneous program management skill set whereas FAI competencies and NASA competencies focus on the program management skill set combined with another skill set such Information Technology (FAI) or Systems Engineering (NASA)
- DAWIA certification experience is coded by generic positions whereas NASA competencies enable experience to be coded to the individual level

Earlier sections explored the idea that, education and training are non-subjective factors for DACM evaluation, leaving experience as the variable. Based on evidence presented, the researchers maintain that the quality of experience is not regulated and can vary greatly. Further, the researchers assert that it is important to discern which type of experience is being discussed. As demonstrated, experience can be related to qualification standards or experience can be related to competencies. The distinction is significant when comparing the DAWIA certification process to current qualification initiatives and Senior Leadership view. It is also significant when offering conclusions, identifying best of breed practices and making recommendations.

From an analytical perspective, let us readdress section three of Ashton Carter's the DASWP. Carter maintains that more robust certification standards are required to

produce a more qualified workforce. While he addresses the specialized competency experience through the AQS, he does not address the DAWIA certification experience. (See Figure 7) Rather, simply by increasing the number of individuals Carter maintains it will produce a more qualified workforce. Given that experience falls into both realms and DAWIA certification experience for civilian Army program managers remains unchanged, the researchers postulate that to affect a robust positive change, additional focus needs to be placed on the experience portion of the DAWIA certification process.

VI. CONCLUSIONS /RECOMMENDATIONS

A. CONCLUSIONS

When compared to current/emerging initiatives and competencies as well as Senior Leadership thought, DAWIA certification as it exists today appears to be insufficient on its own for maintaining a proficient workforce while preserving the integrity of the profession. The following best of breed practices/recommendations have emerged through this research:

- Experience should be discussed in terms of DAWIA certification experience and in terms of individual competency experience. More standardization is required with respect to capturing DAWIA certification experience.
- The workforce and leaders should be educated on the difference between experience, proficiency and competency in order to thoroughly understand the objectives of the emerging C2Q/AQS as well as Senior Leadership views on the workforce.
- Job positions, when announced, should be properly coded for individual job competency areas. A Competency Management Dictionary, similar to the NASA document should be published. Doing so would eliminate the announcement for a Program Manager of weapon system development when compared to the actual requirement of a procurement analyst for contracting acquisitions.
- Program Management skill sets should be augmented with mandatory technical skill sets such as those incorporated with FAI and NASA. In other words, have multiple "flavors" of PM certification and not a "one-size fits all."
- Incorporation of a proficiency checklist is required such as that used by FAI and NASA.

B. RECOMMENDATIONS TO AUGMENT BEST-OF-BREED PRACTICES

The C2Q/AQS will focus on a proficiency type of checklist for enhancing individual skill set after hired for maintenance. If the intent is increasing the quality of the workforce, then this proficiency checklist should be extended to include the capturing of experience prior to DAWIA certification, similar to an entrance exam.

Additionally, as we saw with the sign language interpreter discussion, to be qualified means to able to perform the tasks of program management appropriately and accurately in a given situation. Given situations vary. For this reason, to acquire a robust skill set, civilian Army Program Managers need access to varying situations and experiences. While the Army has adopted the Senior Enterprise Talent Management (SETM) program that rotate civilians into different Program Management Offices and experiences, participation in the SETM requires Army civilian Program Managers to sign mobility agreements (CPOL, 2013). For some, the unwillingness to geographically relocate limits career options.

One potential approach is the adoption of a "bench" type of concept that could be implemented at the PEO level. In this manner, a select group of aspiring PMs are placed on the PEO tables of distribution allowance (TDA). When Project Managers require someone to lead a project, these individuals are pulled to support the various phases. Once the particular phase and objectives are complete, they are operational connected to another program. A tie-in of the Acquisition Demonstration personnel system with specific competency numbers such as that found in a Competency Management Dictionary would ensure that these individuals are assigned to areas to produce the desired effect.

VII. LIMITATIONS OF RESEARCH AND AREAS FOR FUTURE STUDY

This thesis only touches the surface of examining qualification initiatives and merely serves as a road map for watching the future unfold. While the release of BBP 2.0 and the DAWSP prompted a surge of research and effort in this area, at time of the report there is little documented data available and no central repository of initiatives. Conclusions, identification of best of breed practices and recommendations are based on limited and available data.

The researchers maintain that while a lot of effort is currently underway, even more effort is required. The following is a list of future research opportunities that may aid in ensuring that Army maintains a proficient Army civilian Program Manager workforce while preserving the integrity of the profession:

- Conduct comparative analysis of the results of the Naval Postgraduate School (NPS) survey conducted by Dr. Dina Shatnawi with the CNA findings and explore the impact of Sequestration
- Conduct comparative analysis of the competency checklists for FAI, NASA, AQS
- Conduct a study to determine the impact of the DAU Leadership Coaches training with respect to increased qualification of the workforce
- Conduct comparative analysis to determine if a combination of functional areas (such as Information Technology and Systems Engineering) with Program Management skill set results in greater program success rates

In closing, while these conclusions/recommendations are based on limited data, with changing demographics and a fiscally constrained environment, the hiring and retaining of proficient Army civilian Program Managers cannot be business as usual. In keeping with the philosophy of the Honorable Claude Bolton – we must be mavericks and challenge the status quo (Bolton, 2013).

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